



# SHENANDOAH VALLEY GOVERNOR'S SCHOOL



*Arts,  
Humanities,  
& Sciences*

# SHENANDOAH VALLEY GOVERNOR'S SCHOOL

## ARTS, HUMANITIES & SCIENCES



## Overview

Shenandoah Valley Governor's School (SVGS) is an Academic Year Governor's School sponsored by the Virginia Department of Education. SVGS has programs and courses designed to meet the needs of gifted and highly motivated students. SVGS and Valley Career and Technical Center (VCTC) are both integral parts of the Shenandoah Valley Center for Advanced Learning (SVCAL).

SVGS provides a unique environment in which individuals explore the interconnections between technology and (1) mathematics and sciences or (2) the arts and humanities.

Students may attend in one of two intensive program areas:

- **Arts & Humanities**
- **Sciences (Science, Mathematics, Engineering, and Technology)**

SVGS opened its doors in the fall of 1993 to 95 students in a specialized STEM program.

## Community of Learners

### Community

- SVGS serves Augusta County, which is geographically the second largest county in Virginia, and the two independent cities of Staunton and Waynesboro.
- The region is primarily rural with agriculture as its economic base. Estimated median household income in the region for 2022 was \$80,182 with 24.1% of area residents having completed a Bachelor's degree or higher (U.S. Census, 2022 American Community Survey).

### Students

- SVGS students are selected through a competitive admissions process based on multiple criteria such as academic performance, talent, interests, and teacher recommendations.
- Admission is offered to approximately 65% of all applicants.
- Juniors and seniors from seven public high schools in Augusta County, Staunton, and Waynesboro attend this shared-day selective regional school. Students attend SVGS in the morning and their base schools in the afternoon.
- For 2024-2025, 168 students are enrolled in the Sciences program and 59 students are enrolled in the Arts and Humanities program which represents about 7% of the area's total high school junior and senior enrollment.

### Staff

- 95% of SVGS instructors have a Master's degree or higher.

SHENANDOAH VALLEY GOVERNOR'S SCHOOL

## Mission and Focus

SVGS provides a supportive and challenging environment for local gifted and talented students to nurture and develop their talents, expand their knowledge, improve critical thinking skills, and foster their sense of personal and social responsibility.

SVGS has identified nine skills as critical to life-long learning and performance in any academic discipline and profession. These skills are cultivated through exceptional learning experiences at SVGS and are listed below:

1. Intellectual Curiosity
2. Intellectual Independence
3. Persistence and Perseverance
4. Critical Analysis and Reflection
5. Problem Solving
6. Leadership and Collaboration
7. Communication
8. Digital Literacy
9. Social and Ethical Responsibility

## SVGS Class of 2024 Graduate Profile

92% of the SVGS Class of 2024 matriculated to a 4 year college. 7% attended BRCC or another 2 year program of study.

Students in the SVGS Class of 2024 reported their intention to major in these areas of study:

Virginia Tech	18%
University of Virginia	17%
James Madison University	10%
College of William and Mary	6%
Other Virginia 4 Year Colleges	21%
Out of State 4 Year Colleges	20%
BRCC (or other 2 year program)	7%
Undecided at time of survey	1%

STEM	28%
Health & Medicine	22%
Business	15%
Social Science	11%
Arts & Humanities	3%
Other	3%
Undecided at time of survey	8%



## Rigorous, Enriching Courses

### Arts and Humanities\*

- Literature, Comp & Ideas I, II (DE)
- Psychology (AP)
- Developmental Psychology (DE)
- Sociology of the Family (DE)
- Humanities in Western Culture
- Teachers for Tomorrow I, II (DE)
- Communications (DE)
- Acting I, II
- Film Studies/Film Making I, II
- Scientific Research - Social Science
- Senior Capstone Mentorship

### Sciences\*\*

- Scientific Research - Life Science
- Scientific Research - Physical Sci
- Advanced Scientific Research
- Adv Environmental Science (DE)
- Aquatic Ecology
- Chemistry (AP)
- Intro Chemistry (DE)
- Physics
- Physics C (AP)
- Modern Physics
- Molecular Biology (DE)
- Geospatial Information Sys (DE)

### Pre-Calculus

- Calculus (DE)
- Calculus BC (AP)
- Advanced Calculus-Multivariable
- Discrete Mathematics (DE)
- Statistics (DE)
- Mathematical Modeling
- Machine Learning
- Computer Science (AP)
- Advanced Computer Science
- Cyber Security & Software Operations
- Engineering I, II
- Senior Capstone Mentorship

\*Arts & Humanities students are required to take one class in English and two elective choices in human experience or human communications during their first year. Second year students take four classes and may take multiple classes in the same area (i.e. 2 human communication classes) pending their interest and needs.

\*\*STEM students typically take 3 classes in each of the following areas: *mathematics, science and technology*. First year students must take either Intro to Scientific Research, Engineering I, or AP Computer Science. Second year students take four classes and may take multiple classes in the same area (i.e. 2 science classes) pending their interest and needs.

- All SVGS classes are year-long classes and are taught at an advanced/college level.
- SVGS classes are designated as "GS" on the student's official high school transcript and are weighted one quality point in the student's GPA at their host high school.

## Practical, Professional Experiences

### ACADEMIC EXPERIENCES

- Academic Competitions
- Electric Vehicle Team
- Field Experiences
- Professional Workshops
- FIRST Robotics Team
- Outreach
- Performances
- Community Service Projects
- Senior Capstone Mentorship

### ARTS & HUMANITIES

The Arts and Humanities program utilizes an extensive "community campus" to offer students experiences in professional spaces with professional artists and artisans. Arts and Humanities students participate in multiple performances and exhibits throughout the year.

### SCIENCES

All first year Science students must complete an independent **research, engineering design or programming project**. Students may choose a project in any area of science, math or engineering. Research and engineering teachers facilitate these projects and students are mentored by the school's STEM staff. If additional expertise is needed, community mentors are used to support the student's specific research or engineering interest.

### SVGS SENIOR CAPSTONE

Each SVGS program graduate must also complete a senior **capstone project**.

The senior capstone project is a long -term project embedded in a specific aspect of the curriculum. The intent is to encourage students to reach beyond their academic work, extending and enhancing the traditional school experience outside of the classroom.

This project allows students to further engage in areas related to their career interests, and to apply academic and professional skills through authentic learning experiences.

Capstone projects are experiences embedded in the curriculum of a select group of SVGS courses or the Senior Capstone Mentorship course.

### Shenandoah Valley Governor's School

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Visit us on the web at [www.svgs.k12.va.us](http://www.svgs.k12.va.us)

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Sept 2024

# SVGS SKILLS



SVGS will provide a comprehensive and intellectually challenging program for gifted learners, high achievers and creative thinkers in a *community of learners* setting that extends and enriches their education *by providing rich, deep learning experiences to foster skills and habits of mind necessary to living successful lives.*

SVGS has identified **nine skills** as critical to life-long learning and performance in any academic discipline and profession. These skills are cultivated through exceptional learning experiences at SVGS and are defined below as follows:

## INTELLECTUAL CURIOSITY

*Intellectual curiosity in creative, scientific, and humanistic inquiry involves asking questions as first steps to explore complex and open-ended subjects. Intellectual curiosity is necessary to explore questions in detail and to further refine, reframe, or re-direct inquiry projects. Intellectual curiosity is the foundation of human discovery and innovation.*

## INTELLECTUAL INDEPENDENCE

*Intellectual independence involves generating new ideas, applying existing ideas in innovative ways, testing ideas that may fail, and pursuing questions that cut across academic fields. Intellectual independence is the cornerstone of lifelong learning.*

## PERSISTENCE AND PERSEVERANCE

*Persistence and perseverance keep an individual on task in spite of obstacles and set-backs. They involve disciplined work habits and the willingness to identify and utilize a variety of resources in pursuit of a goal. Persistence and perseverance are the essential connectors between good ideas and successful innovations.*

## CRITICAL ANALYSIS AND REFLECTION

*Critical analysis and reflection include evaluating and questioning ideas and considering how the point of view from which a question is approached will affect findings and conclusions. Another important aspect of critical analysis and reflection is metacognition – analyzing the learning processes that led to one's own understanding. Strong critical analysis and reflection skills are necessary for understanding where ideas come from, viewing problems and ideas from multiple points of view, and effectively using new information to revise and refine ideas.*

## PROBLEM SOLVING

*Problem-solving includes framing a situation or question to be resolved, applying theory, and consulting experts to gather insight, generating possible pathways to a solution, testing and refining a chosen pathway, and communicating results to the problem's stakeholders. Sound problem-solving skills are needed whenever the desired state of affairs is unmatched by the current state.*





## LEADERSHIP AND COLLABORATION

*Leadership and collaboration skills involve working with others toward common goals. Motivating people, capitalizing on individual strengths, organizing work flow, and negotiating compromise are important elements in collaboration. Leadership and collaboration skills enable a group to exceed the sum of individual contributions.*

## COMMUNICATION

*Communication skills include active listening and clear, well supported, and contextually appropriate writing and speaking. Another important aspect is the effective application of these skills in the use of various digital means of communication. Communication skills are the foundation of human interaction and understanding.*

## DIGITAL LITERACY

*Digital literacy includes communicating through digital devices and applications, accessing and evaluating digital resources, and using digital technologies to create, model, and analyze ideas. Central to digital literacy is an understanding of how humans can effectively use digital resources to give shape to, evaluate, and share ideas.*

## SOCIAL AND ETHICAL RESPONSIBILITY

*Social and ethical responsibility involves decision-making and problem-solving that promotes human well-being and seeks to address the needs of local and global communities. Understanding the consequences and benefits to various constituents is central to making decisions that are socially and ethically responsible.*

“In order to obtain the intellectually unique atmosphere present at SVGS, peers must rely on each other to critique the projects, presentations, and other various assignments of fellow students in a cooperative manner. This quality sets SVGS apart as a community of learners because it displays the passion each student exhibits for their work and that of their peers.”



“Learning at SVGS is about so much more than an individual educational experience. Classes here are more interactive and centered on active learning and engagement; SVGS feels like a true community of learners rather than a hodgepodge of students who happen to be interested in STEM or theater/visual art. This community sense is established at SVGS through the curiosity, hard work, and dedication of the students here.”



“At SVGS, my peers and I value learning, education, the numerous resources that are granted to them and the incredible opportunities that SVGS has to offer. The community of learners at SVGS should be able to work and succeed in an environment that is positively enforced by the student body that makes it up. Students should be able to achieve their own values and support the values of others in order to unify the learning community.”

# ARTS & HUMANITIES

## Overview

SVGS has programs and courses designed to meet the unique needs of gifted and highly motivated students in different areas. Students may attend SVGS in the **ARTS & HUMANITIES** program.

The Arts & Humanities program focuses on broader contexts and an integrated experience using arts and humanities 1) to develop skills in critical thinking and communication, 2) to engage students in creative thought, and 3) to understand the value of human expression for individuals and societies.

Arts & Humanities students are required to take 1) one class in English; 2) one class each from human experience and human communication; and 3) two elective choices from those areas. These areas provide students interested in arts & humanities an intensive program to develop their skills. The program is designed to provide student choice and flexibility so they may best match their interests and talents with program offerings.

## Community of Learners

Numerous arts organizations and artists have partnered with SVGS to provide students with enrichment and extensions in arts & humanities. In particular, students and staff work with the Staunton-Augusta Art Center, Shenandoah Valley Art Center, ShenanArts, Waynesboro Players, and the American Shakespeare Company. Many private artists have opened their studios to SVGS students. SVGS also presents a series of distinguished Humanities scholars and artists to share their backgrounds, experiences, knowledge and perspectives with students through the Giving Voice speaker series which has included experts from philosophy and ethics, communications, anthropology, psychology, sociology, writing, music, and film making.



"At SVGS, I'm so thankful you emphasized reading a piece, annotating it, analyzing it and then writing about it because that's so important. It's all about analyzing and applying information."



"The Arts and Humanities program here has taught me how to be a much better writer and public speaker. Even though I don't plan on pursuing a career in the arts, I have learned many useful skills that I can use in everyday life."



"SVGS teachers have pushed me to have to work hard at improving my writing skills, going more in depth in ways of thinking outside the box, and reading, understanding, and communicating ideas and opinions that I had not previously considered."

## ARTS & HUMANITIES

Focus Area	
<i>Critical Analysis &amp; Writing</i>	Literature, Composition & Ideas I (DE)*+ Literature, Composition & Ideas II (DE)*
<i>Human Experience</i>	AP Psychology Developmental Psychology (DE) Sociology of Family (DE) Humanities in Western Culture Teachers for Tomorrow I, II Scientific Research - Social Science
<i>Human Communication</i>	Communications (DE) Acting I, II** Film Studies/Film Making I, II
<i>Community of Learners</i>	<i>All Arts &amp; Humanities students will participate in a minimum of 4 workshops with professional artists and experts in humanities-related professions as part of their curriculum.</i>

NOTE: The designation (DE) beside a course indicates the course is offered for dual-enrollment college credit.

+Literature, Composition & Ideas I is required of all new Arts & Humanities students.

\*Literature, Composition & Ideas I, II (previously called SVGS Humanities I, II) meet English credit requirements for graduation.

\*\*Students enrolled in this class will have the opportunity for public performance.



# SCIENCES

## Overview

SVGS has programs and courses designed to meet the unique needs of gifted and highly motivated students in different areas. Students may attend in our **SCIENCES** (Science, Mathematics, Engineering, and Technology) program.

All first year science students must conduct an independent research, engineering project, or computer programming project during the first year. This project is formally within the purview of the Scientific Research, Engineering, and AP Computer Science courses. However, students may choose a project in any area of STEM that is interesting, provided a SVGS faculty mentor and a community mentor can be found if the project falls outside in-house areas of expertise. Students are required to present their projects at the Student Research and Engineering Symposium held each spring. Students are also required to submit their projects to the Virginia Science Fair or an equivalent venue, and if accepted, required to attend the annual conference and/or competition.

Course sequence information related to a specific career is provided on the next page. Students in the sciences program do not need to determine a specific area of study but should be familiar with course selections available to prepare them for their intended career path.

## Community of Learners

The SVGS sciences program emphasizes “practical and professional” experiences. Courses in the sciences program are based on problem solving, analysis, and application with a minimum of rote exercise. Technology is embedded heavily in all courses.

Professional experiences are provided through research, engineering and computer science projects, student presentations of their work to professional audiences, work with guest speakers and mentors, and providing services to community groups.



In a 2017 alumni survey, 78% of SVGS alumni who responded have completed or are completing majors in STEM fields.



“Learning how to utilize technology such as Microsoft Excel, utilizing resources to develop an independent research project, preparation in statistics and independent inquiry gave me a major advantage in my college science classes”



“No matter what you think you want to do in college, STEM is helpful EVERYWHERE. To this day, in law school, I’m still thankful for my STEM background (including physics, calculus, research, and molecular biology) because it taught me how to analyze problems in ways that my friends who have only ever studied policy, law, and humanities just don’t know. This well-rounded approach to my education has been so important and I’m forever thankful to SVGS for it.”

# SCIENCES—Science, Mathematics & Technology

Focus Area	Strand	Junior Year	Senior Year
Computer Science	Technology	AP Computer Science (Programming)	Cyber Security & Software Operations Advanced Computer Science
	Science	Physics (AP)	AP Computer Science (Programming)
	Mathematics	Pre-Calculus Calculus (AP or DE)	Calculus (AP Calculus BC or DE) Adv. Calculus – Multivariable Discrete Math (DE) Machine Learning Mathematical Modeling
Engineering	Technology	Engineering I AP Computer Science (Programming) Scientific Research – Physical Science	Engineering II AP Computer Science (Programming) Cyber Security & Software Operations Geospatial Information Systems (DE)
	Science	Physics (AP)	AP Chemistry Intro Chemistry (DE) Aquatic Ecology Advanced Environmental Science Molecular Biology (DE) Modern Physics
	Mathematics	Pre-Calculus Calculus (AP or DE)	Calculus (AP Calculus BC or DE) Adv. Calculus – Multivariable Machine Learning Mathematical Modeling Statistics (DE)
Life Sciences, Health/Medical Sciences	Technology	Scientific Research – Life Science AP Computer Science (Programming)	Advanced Scientific Research Extra Science Elective AP Computer Science (Programming) Advanced Computer Science Geospatial Information Systems (DE)
	Science	Physics (AP) Intro Chemistry (DE)	AP Chemistry Advanced Environmental Science Environmental Chemistry (DE) Molecular Biology (DE)
	Mathematics	Pre-Calculus Calculus (AP or DE)	Calculus (AP Calculus BC or DE) Statistics (DE) Mathematical Modeling
General Math, Science & Technology	Technology	Engineering I AP Computer Science (Programming) Scientific Research – Physical Science Scientific Research – Life Science	Advanced Scientific Research AP Computer Science (Programming) Advanced Computer Science Cyber Security & Software Operations Engineering II Geospatial Information Systems (DE) Extra Mathematics Elective Extra Science Elective
	Science	Physics (AP)	AP Chemistry Intro Chemistry (DE) Aquatic Ecology Advanced Environmental Science Molecular Biology (DE) Modern Physics Advanced Scientific Research
	Mathematics	Pre-Calculus or Calculus (AP or DE)	Calculus (AP Calculus BC or DE) Adv. Calculus – Multivariable Statistics (DE) Discrete Math (DE) Machine Learning Mathematical Modeling

# HOW TO APPLY

## Overview

Students submit an on-line application to their high school counselor. Each high school sets its own timeline and deadlines.

The student application includes:

- ◆ Student Application Form
- ◆ Activities Sheet
- ◆ SVGS assessment scores, GPA, Strength of Transcript
- ◆ Two Teacher Recommendations (Math and Science or English and Arts/Humanities)
- ◆ One Counselor Recommendation
- ◆ School Recommendation

## Tips For Completing the Application

**APPLICATIONS are available on the SVGS website ([www.svgs.k12.va.us](http://www.svgs.k12.va.us)) beginning December 1.** The application will ask you to provide demographic information, overview of your extracurricular activities, and contact information for your teachers from whom you are requesting recommendations, your counselor, and principal. All portions of the application will be submitted online.

Since notifications and requests for recommendations are sent electronically, it is critical to provide correct email and contact information. *If an incorrect email is submitted, the student may be asked to complete another application with the correct information.*

Students may begin an application and return to finish. A link to re-access the saved application will be sent to the student email address listed on the application. Students must list a student email to save the application.

*\*Students may print a copy of their application for their records. It is highly encouraged that students “compose” their responses regarding activities in a word document, save the word document, and then copy and paste their responses from the word document to the on-line application.*

## Pre-Requisite for Sciences Applicants

**Completion of required pre-requisites of Math through Algebra II** and two laboratory science courses (i.e. Earth Science & Biology) by the time of matriculation to SVGS is required.

**NOTE:** Chemistry is not required as a pre-requisite for admission to SVGS; however, it is recommended for students particularly interested in sciences so they have additional advanced science opportunities their senior year. Students who do not complete Chemistry prior to enrollment at SVGS will be required to 1) take Chemistry at their homeschool, or 2) take DE Intro Chemistry at SVGS their junior or senior year.

*“SVGS is a very special place where each student is nurtured in their abilities and talents. It is a loving community that fosters ambition in various studies as well as extracurricular activities.*



*“The intersection between the two branches is incredibly important because it develops respect among students for their different, unique talents.”*



*“It prepared me for college, of course, but it also prepared me for the real world. It showed me that my talents meant something and could be harnessed to shine brightly in my studies and in the workforce.”*

## Application Rubric

Applications for students are forwarded to a designated Central Office person for each school division. Applications are reviewed by the school division. A selection committee from each school division recommends students for placement, for a waiting-list, or nonplacement. The application rubric for each program is shown below.



ARTS & HUMANITIES		SCIENCES	
Arts/Humanities Teacher	60	Math Teacher	60
English Teacher	60	Science Teacher	60
Counselor	40	Counselor	40
School	60	School	60
<b>Recommendations Total</b>	<b>220</b>	<b>Recommendations Total</b>	<b>220</b>
  <b>*SVGS Reading Assessment</b> 100 <b>*SVGS Essay</b> 100		  <b>**SVGS Math Assessment</b> 100 <b>**SVGS Science Assessment</b> 100	
<b>Assessments Total</b>	<b>200</b>	<b>Assessments Total</b>	<b>200</b>
GPA	GPA x 40	GPA	GPA x 40
Strength of Academic Program	20	Strength of Academic Program	20
<b>Academics Total</b>	<b>220</b>	<b>Academics Total</b>	<b>220</b>
<b>Personal Interest and Activities Total</b>	<b>100</b>	<b>Personal Interest and Activities Total</b>	<b>100</b>
<b>TOTAL</b>	<b>740</b>	<b>TOTAL</b>	<b>740</b>

\*All **Arts & Humanities applicants** will take the SVGS assessment. The assessment will include – 1 reading section 20 minutes, 10 questions and 1 essay – 60 minutes, 1 question. An essay “practice” prompt and scoring rubric would be presented to students prior to the essay. The timed assessment will be given at the student’s home school in February.

\*\*All **Sciences applicants** would take the SVGS math and science assessment. The assessment will include 1 math section, 20 questions; and 1 science section – 50 minutes, 25 questions. The timed assessment will be given at the student’s home school in February.



## Application Timeline

**SVGS 2025-26 Applications Available**

**December 1, 2024**

**SVGS 2025-26 Applications Due (Student Submission)**

**February 20, 2025**

SVGS Assessment Testing

February 10-21, 2025

SVGS Decisions

Approx April 1, 2025

SVGS New Student/Parent Meeting

April 15 & 16, 2025

Memos of Understanding Due

Tuesday, April 22, 2025

SVGS Course Requests Due

Tuesday, April 29, 2025

SVGS Orientation





## ADVICE FROM SVGS ALUMNI

"Take every class with the intention of learning the material, rather than simply fulfilling a requirement or earning a grade. Success in college is built upon going beyond what is asked. The desire to learn facilitates the ability to go deeper."

"Practice saying yes to opportunities because you never know where they may lead."

"SVGS is where you learn the valuable study skills and foundational knowledge to succeed at the next level -- it really made all the difference for me, and it can for you too if you put the work in!"

"The most important asset to me at SVGS and in college has been my classmates who in turn become my friends and teach me in all sorts of ways - don't underestimate how empowering and humbling those friendships are! "

"Don't put pressure on yourself to fit into someone else's mold. Be the best version of yourself that you can be. Everything you learn in life whether in a classroom or not will prepare you for your next journey. Don't ever think you know everything, approach life with a humble attitude."

"Get used to talking to people - if you're not good at talking to people, then practice. You WILL have to work with all types of people, and your success WILL be determined by how well you interact with them, I can promise you that."

"Know that everything you're doing, even in high school, has a purpose. Don't just blindly do tasks; think about the reasons for them and how the skills they give you might help in the future. Real life is here before you know it."