

# The Governor's School @ Innovation Park Student Application Program Description

The Governor's School @ Innovation Park (GS@IP) offers selected juniors and seniors from Manassas City, Manassas Park, and Prince William County Schools (PWCS) an advanced and intensive program in science, technology, engineering, and mathematics (STEM). Students selected to attend the two-year program will attend classes at George Mason University (GMU) Prince William Campus each morning. At that campus, students will follow a sequence of courses designed to integrate mathematics and research with specializations in biology, chemistry, engineering, or physics. Students will select which strand (biology, chemistry, engineering, or physics) they wish to pursue the two-year study. Along with specifically designed coursework in that strand, students will be provided with an intensive study in mathematics that supports their scientific and research endeavors. Students will be placed initially in either Advanced Mathematics Models or Calculus I. Students return to their base high schools each afternoon to complete other requirements for graduation.

A unique feature of the program is its emphasis on research. All students will come together in designated STEM electives to design and conduct original research. Students, working across strands, will integrate their knowledge and perspectives to design, conduct, and report their research exactly as scientists at major universities, such as GMU, do. To help students understand the importance of their research and the engineering applications of their learning, each student will complete a mentorship working with STEM professionals on specific projects.

As a continuously accelerated model, only rising juniors may enter this program. Applicants must be aware that participation in this program carries with it the expectation that registration for courses at their base high school will be restricted. It is strongly recommended that they take the following courses before applying for GS@IP:

Subject Area	Required	Recommended	
Science*	<ul><li>Biology</li><li>Chemistry</li></ul>	Physics**	
Mathematics	<ul><li>Algebra I</li><li>Geometry</li></ul>	<ul> <li>Precalculus w/Trigonometry for AB**</li> <li>Precalculus w/Trigonometry for BC</li> <li>Algebra II/Trig</li> </ul>	
Electives		<ul> <li>Economics and Personal Finance</li> <li>Fine or Practical Art</li> <li>World Languages ***</li> </ul>	

\*Advanced level, Advanced IBMYP or IGCSE level recommended but not required

\*\*Required for all students entering the engineering strand

\*\*\*3 years of one language

#### GS@IP Website: https://governors.pwcs.edu

Division	Office	Email Address	Phone Number
Manassas City Schools	Gifted/Talented and Advanced	kwesselhoft@mcpsva.org	571-377-7317
	Programs		
Manassas Park Schools	Manassas Park High School	natalie.teague@mpark.net	703-361-9131
	Counseling Office		
Prince William County	Advanced Academics and	aasp@pwcs.edu	703-791-7923
Schools	Specialty Programs		

Prince William County Public Schools (PWCS) does not discriminate in employment or in its educational programs, services, and activities on the basis of race, color, religion, national origin, sex, gender identity, sexual orientation, pregnancy, childbirth or related medical conditions, age, marital status, veteran status, disability, genetic information, or any other basis prohibited by law. The following individual will handle inquiries regarding nondiscrimination polices, including Section 504 and Title IX: Associate Superintendent for Human Resources

Prince William County Public Schools, P.O. Box 389, Manassas, VA 20108

\*\*Please note that this document outlines the steps students will complete to submit their online application via our online application portal. Required information must be submitted by 11:59 p.m. on February 1, 2024.\*\*

### **Admissions Process**

Students' potential to succeed at GS@IP will be assessed through a variety of means, including but not limited to PSAT scores, GPA, and teacher recommendations. No single assessment disqualifies a student from review. Each school division makes its own decisions about eligibility, but all three school divisions use the same criteria and application process. Students found eligible by the school system must be accepted by GMU before final acceptance to GS@IP.

The following information is collected and reviewed for each applicant:

- Demographic Information
- **Career Highlights** Activities, participation in organizations, awards, and honors.
- **Portfolio** The portfolio is used to demonstrate the applicant's interest and ability in STEM. The Portfolio is comprised of several parts:
  - Part 1: Research project- Paper and presentation
  - Part 2: Annotated Article
  - Part 3: Podcast
  - Part 4: Timed Essay
- Recommendations Each applicant must request recommendations from the current science teacher, current mathematics teacher, and one other adult. To request a recommendation, please input the teacher's name in the application portal. \*It is very important that you input the recommender's email address correctly. The portal will send the teacher an email reminder every day from <a href="mailto:scribsoft.com">scribonline@scribsoft.com</a>. Remind your teachers to check their spam folder for the recommendation link. It is strongly suggested that you complete the initial application early to give your teachers time to complete the recommendation. For an example of the email that teachers will receive, please see the example email below:

#### APPLICATION NUMBER: C7MRH5BEM

Dear,

A student, Tuna Gentry, is currently applying to be a part of a **Specialty Program** at **Prince William County Schools** for the **2022-23 School Y** ear. They provided your email address for a required recommendation. To complete the recommendation form, please follow the link below: <u>https://pwcvac.scriborder.com/reference/1638819266861/C7MRH5BEM</u>

If you would rather not complete this letter of recommendation, there is an 'Opt Out' button on the bottom left of the form. If you select this button, then you will not receive reminders and will be removed from this student's list of recommendations. *Please do not respond to this email as this address is not checked.* 

Best Regards, Prince William County

Prince William County Schools

- Grade Point Average Each applicant's Grade Point Average (GPA) will be calculated on an unweighted scale for science, technology, engineering, and mathematics courses only. Students must have an overall GPA of 3.4 or higher for entry into GMU.
- Official Transcript- PWCS has access to this information and will submit this on your behalf.

### **George Mason University Admission Process**

Students selected to attend GS@IP must be eligible for admission as a special Guest Matriculate Student at GMU. The university reviews each student's official high school transcript.

- Students need to have taken or be taking all pre-requisite mathematics and science courses with successful mastery of course content.
- Students should have an overall GPA of 3.4 or higher.
- Students should rank in the top quarter of the class.

### **Applicant Information**

The following information will be collected through the online application. Use the following pages to plan your answers before submitting them to the online portal. It is strongly suggested that you submit the information below first and upload your supporting documents (portfolio) later.

#### **Demographic Information:**

- o First, Middle, Last Name
- o Address
- o Date of Birth
- Student Email
- o Student Cell Phone
- o Parent/Guardian 1 Name
- o Parent/Guardian 1 Email
- o Parent/Guardian 1 Cell Phone
- Parent/Guardian 2 Name
- Parent/Guardian 2 Email
- o Parent/Guardian 2 Cell Phone

#### **Activities/Programs:**

List the three most significant activities/programs in which you have participated **during the past three years that relate to STEM.** Include the name of the organization, sponsoring agency, or group. Describe the time involved and any leadership position you have held. Under "Year", indicate the calendar year of the training or activity. Please explain any acronyms that you use.

- Activity 1
  - Position Held
  - Time Involved
  - o Year
- Activity 2
  - Position Held
  - Time Involved
  - o Year
- Activity 3
  - Position Held
  - Time Involved
  - o Year

#### **Honors/Recognitions:**

List the three most significant honors/recognitions you have received in your area of interest, **during the past three years.** Please explain any acronyms that you use.

- Honors/Recognitions 1
  - Level of competition (regional, state, national, etc.)
  - o Year
- Honors/Recognitions 2
  - Level of competition (regional, state, national, etc.)
  - o Year
- Honors/Recognitions 3
  - Level of competition (regional, state, national, etc.)
  - o Year

#### **Reference Information:**

- o Current Math Teacher Name
- Email for current Math Teacher
- Current Science Teacher Name
- Email for current Science Teacher
- o Additional Teacher/Adult Reference Name
- Position of Reference 3
- Email for Reference 3

### Sample Recommendation:

All recommendations must be completed in the application portal. An online form will be sent to the email addresses supplied by the student through the online portal. A recommendation must be made by the student's current science teacher, current math teacher, and one other teacher or adult of their choice. Be sure to enter an **accurate email address** for all your references.

Below are the questions to be answered by references.

### **Course Information**

What course or program of studies has the student taken under your supervision? In what year(s)?

### **Rating Scale**

Please estimate the extent to which the student has demonstrated in your class(es) the qualities listed below. Use the scale from 0-3 as indicated. Be sure to respond to all qualities; items omitted are included as a zero when computing a score. Please use only whole number values. Subtotal will be out of 36 total points.

0- Fair (Below Average) 1 - Good (Above Average) 2- Excellent (Top 10%) 3- Outstanding (Top 2-3%)

- 1. Motivation
- 2. Self-direction/Initiative
- 3. Intellectual curiosity
- 4. Independence of thought
- 5. Originality of ideas
- 6. Use of higher-level thinking skills
- 7. Ability to contribute to a group process
- 8. Willingness to accept ideas of others
- 9. Self-discipline
- 10. Openness to new experiences
- 11. Maturity
- 12. Reaction to setback/feedback

*Narrative:* Please use the space below to provide any additional insight you may have regarding the student's strength as a qualified candidate for The Governor's School @ Innovation Park.

# Acknowledgments

Applicants must agree to the following acknowledgments before clicking submit.

- I understand that the programs require concerted academic focus, preparation, and motivation from all participants and that participants are expected to demonstrate the emotional maturity and self-discipline to participate in the activities and to demonstrate respect for themself, others, the program, and the school.
- I certify that I am a resident of the Commonwealth of Virginia and eligible for a free, public education in a public school in Prince William County, Manassas City, and Manassas Park City Schools.
- I understand that acceptance letters are communicated through the online portal only and will only be released on the date indicated in the "Important Dates" list in this packet.
- I understand that, if accepted, I will submit an electronic application to George Mason University by the date indicated in the "Important Dates" list in this packet.
- I understand that, if accepted, I will be considered a Guest Matriculate Student at George Mason University. I understand that I am responsible for abiding by university procedures regarding course registration, academic studies, and conduct.
- I understand that the GS@IP calendar could be different from my home school calendar. GS@IP students are required to attend school on all scheduled days.
- I understand that the cost of participation per student is paid by the participating school division. I take this commitment seriously and recognize that my family may be required to reimburse the school division for the cost if I choose to leave the program before graduation.
- I understand that tuition costs for optional dual enrollment courses in which I choose to enroll are not covered by my school division, I agree to pay the balance in full and abide by George Mason University's registrar calendar for add/drop and payment due dates.
- I have discussed graduation requirements with my parents and my school Point of contact; I am aware of the coursework/credits I must successfully complete for the diploma I wish to pursue.
- I certify that these are my truthful responses to these expectations.
- The decision to apply to the GS@IP is my own, and I want to participate fully in the program. The responses contained in this application are my own work. I have read in their entirety the application procedures, including the application forms, and program expectations, and am aware of my school division's appeals process.
- GS@IP is a highly competitive program with a strong belief in trust and integrity. All applicants are expected to present themselves in the best possible light. All information must be complete, accurate, and their own work. Any incident of academic dishonesty or cheating may result in removal from the application process or immediate removal from the program, regardless of when the infraction was committed. I affirm that this submission represents my own work, without the use of any unpermitted aids or resources. I understand that there will be no tolerance for academic dishonesty and that cheating can and will lead to removal from the application process or removal from the GS@IP.

# SUBMIT YOUR APPLICATION IN THE ONLINE PORTAL

The remaining part of the application may be completed and uploaded to the application portal later.

# **Student Portfolio**

The student portfolio is a collection of work produced that will demonstrate your commitment and experience in STEM. All applicants will submit a portfolio which includes these pieces:

- 1. Research project (written and oral presentation)
- 2. Annotated Article
- 3. Podcast/Video
- 4. Timed Essay- this will be completed after the application deadline and will not be uploaded to the online application.

The portfolio is rated by STEM teachers, who will determine its strength holistically. A rubric for each component is included at the end of the packet.

### 1. Research Project

Students must submit a detailed project that incorporates all aspects of scientific research or engineering design. Students should submit the complete written component of the research project in addition to the oral component. The oral component is usually the PowerPoint or other application that is used to present your research. You may place notes in the slides, **but you may not voice over the PowerPoint**.

#### Option 1:

Students who have participated in the local, regional, or state Virginia Junior Academy of Science (VJAS) or any level of the International Science and Engineering Fair (ISEF) competitions may submit their work for those competitions. **Such research must have been completed after the beginning of grade 9** to be eligible for review. Such products must include both the written documentation of design as well as the display represented for judging. All forms submitted to the initial competition must be included in this submission for review.

#### Option 2:

Students may design a new project which incorporates all aspects of scientific research or engineering design. Students must complete and submit the written and oral presentation components of their design. Students may design their experiments and collect and evaluate authentic data if time permits. If the data cannot be collected within the timeframe available, students may create data that are probable within the existing conditions and present summaries and conclusions around those data. **Students choosing option 2 should limit their experiments to questions that do not require the use of human subjects, recombinant DNA, tissue, pathogenic agents, or controlled substances.** 

For reference, students should review the information at the following websites:

- <u>https://student.societyforscience.org/international-rules-pre-college-science-research</u>
- https://www.societyforscience.org/isef/2021-resources/

# **Research Project Rubric**

	Expert-3	Proficient-2	Apprentice-1	Novice-0
Integration of Knowledge	The paper demonstrates that the author fully understands and has applied concepts to the project. Concepts are integrated into the writer's own insights. The writer provides concluding remarks that show analysis and synthesis of ideas.	The paper demonstrates that the author, for the most part, understands and has applied concepts learned to the project. Some of the conclusions, however, are not supported in the body of the paper.	The paper demonstrates that the author, to a certain extent, understands and has applied concepts to the project.	The paper does not demonstrate that the author has fully understood and applied concepts to the project.
Topic Focus	The topic is focused narrowly enough for the scope of this assignment. A thesis statement provides direction for the paper, either by statement of a position or hypothesis.	The topic is focused but lacks direction. The paper is about a specific topic, but the writer has not established a position.	The topic is too broad for the scope of this assignment.	The topic is not clearly defined.
Depth of Discussion	In-depth discussion & elaboration in all sections of the paper.	In-depth discussion & elaboration in most sections of the paper.	The writer has omitted pertinent content or content runs-on excessively. Quotations from others outweigh the writer's own ideas excessively.	Cursory discussion in all the sections of the paper or brief discussion in only a few sections.
Cohesiveness	Ties together information from all sources. Paper flows from one issue to the next without the need for headings. Author's writing demonstrates an understanding of the relationship among material obtained from all sources.	For the most part, ties together information from all sources. Paper flows with some disjointedness. Author's writing demonstrates an understanding of the relationship among material obtained from all sources.	Sometimes ties together information from all sources. Paper does not flow - disjointedness is apparent. Author's writing does not demonstrate an understanding of the relationship among material obtained from all sources.	Does not tie together information. Paper does not flow and appears to be created from disparate issues. Headings are necessary to link concepts. Writing does not demonstrate understanding any relationships.
Spelling & Grammar	No spelling &/or grammar mistakes.	Minimal spelling &/or grammar mistakes.	Noticeable spelling &/or grammar mistakes.	Unacceptable number of spelling and/or grammar mistakes.
Citations	Cites all sources data obtained from other sources. Citation style is used in both text and bibliography.	Cites most data obtained from other sources. Citation style is used in both text and bibliography.	Cites some data obtained from other sources. Citation style is either inconsistent or incorrect.	Does not cite sources, this is an academic integrity violation.

## 2. Annotated Article

Students must choose a STEM article that interests them. Annotate the article to make it accessible to someone who may not understand the technical language used in the article. Please include the original article and the bibliographical information for the article. Completed annotations and articles must be uploaded to the online portal, in one file.

Please see the URL pasted below to provide you with guidance on how to annotate an article: <u>https://www.oregonsd.org/site/handlers/filedownload.ashx?moduleinstanceid=468&dataid=2232&FileName=ar ticle\_of\_the\_week.pdf</u>

Criteria	Expert-2	Proficient-1	Apprentice-0
Summary	The summary clearly outlines the main research question, methods, results, and implications in the student's own words.	Most of the article is summarized, but the student may not clearly cover all aspects (i.e., the main research question, methods, results, and implications).	The student does not clearly summarize the main points of the article (i.e., the main research question, methods, results, and implications) and/or includes inaccurate information.
Analysis	The student provides an insightful analysis of the article. The student articulates novel ideas that clearly go beyond what is in the article itself. The analysis is clear and rational.	The student provides an analysis of the article, but the ideas presented are mostly novel, and do not go beyond what is in the article itself.	The student does not clearly move beyond a summary of the article to provide an analysis. No new ideas are contributed beyond what is in the article itself, or the analysis is overly confusing.
Writing	Overall, the student's communication of their analysis is clear and evidences a general, overarching understanding of the issues involved in the article.	Overall, the student's communication of their analysis is somewhat clear and/or suggests some understanding of the issues involved in the article.	Overall, the student's communication of their analysis is confusing, unclear, and/or suggests limited understanding of the issues involved in the article.
Format	Paper consistently follows formatting guidelines and includes in-text citations as appropriate.	Paper occasionally follows formatting guidelines but does not include appropriate in-text citations	Paper does not follow formatting guidelines and/or fails to accurately cite the article
Mechanics	Grammatical, punctuation, and spelling errors are rare and do not detract from reading the paper. Basic sentence structure is good (e.g., avoids run-on sentences, sentence structure is solid).	There may be a few grammatical, punctuation, and/or spelling errors, but overall, they do not detract too much from reading the paper. Basic sentence structure is good (e.g., avoids run-on sentences, sentence structure is solid).	Grammatical, punctuation, and spelling errors significantly detract from reading the paper. Basic sentence structure often includes poor structure (e.g., run-on sentences).

# **Annotated Article Rubric**

## 3. Podcast/Video

Create a 5–10-minute podcast or video. In the podcast or video, please address all items below:

- Start the video by stating your name and preferred strand.
- Why do you want to attend Governor's School?
- Why did you choose your preferred strand?
- What will you bring to Governor's School?
- What do you expect from Governor's School?
- How do you plan to apply your experiences to your future plans?
- What challenges might arise from being a student at two schools?
- Where do you see yourself in the next five years and ten years? What will you be doing?

Please see the URL pasted below which will provide you with suggestions on how to create a podcast. <u>https://www.npr.org/2018/11/15/662070097/starting-your-podcast-a-guide-for-students</u>

Description	Expert-4	Proficient-3	Apprentice-2
Timing	Podcast/video was 7-10 minutes.	Podcast/video was 5-7 minutes.	Podcast was less than 5 minutes
Content	The student answered all questions and provided in- depth explanations.	The student answered most questions and/or provided vague explanations.	The student answered few or no questions and/or provided little or no explanations.

# Portfolio Upload

All documents (excluding timed writing) need to be uploaded to the online application portal no later than 11:59 p.m. on February 1.

A few things to remember:

- Save documents with the following naming convention: Last name\_firstname\_Item. Ex: Gentry\_Tuna\_Research Paper
- All documents need to have your name, student number and title at the top. If you have a cover page for your research paper, you do not need to change it.
- Upload the portfolio documents to your online application portal. To upload to your online application login to the family dashboard, click view/add docs button, Upload. If you need to change a document after you have uploaded it, add
- Important: Only PDFs and/or Image Files (PDF, JPEG, JPG, TIFF, TIF, PNG, BMP) can be uploaded.

See example below:

1.	C7G3GPFNQ 11/1/2021	Gentry, Tuna	The Governor's School at Innovation Park / The Governor's School at Innovation Park 2022-2023 School Year	Complete View / Add Docs	Application Received. Processing
			Timed Essay	y	

Applicants are required to complete a timed essay. The essay will be completed after the application deadline and does not need to be submitted with the portfolio. In the essay, the committee is looking to see how you think and problem-solve. All students will have 90 minutes to complete the essay.

The timed-writing essay will be administered during two sessions, on a Friday afternoon and a Saturday morning. The essay will be administered through Canvas and Zoom. Applicants will choose one session to attend. Like online classes at GS@IP, cameras are required to be on during the duration of the essay. Candidates should choose a location free from distractions.

Rubric for Timed Essay: Applicants should review the rubric below and consider each of the areas carefully as they begin thinking about the writing process for their essay.

Criteria	Expert- 3	Proficient- 2	Apprentice- 1	Novice- 0
Focus/ Main Point	The essay is focused, purposeful, and reflects clear insight and ideas	The essay is focused on the topic and includes relevant ideas	The essay is focused on topic and includes few loosely related ideas	The essay poorly addresses topic and includes irrelevant ideas
Support	Persuasively supports main point with well-developed reasons and/or examples	Supports main point with developed reasons and/or examples	Supports main point with some underdeveloped reasons and/or examples	Provides little or no support for the main point
Organization & Format	Effectively organizes ideas to build a logical, coherent argument	Organizes ideas to build an argument	Some organization of ideas to build an argument	Little or no organization of ideas to build an argument
Language Use, Style & Conventions (Sentence structure, word choice, grammar, spelling, punctuation)	Effective and creative use of elements of style to enhance meaning Uses correct grammar, spelling, punctuation throughout with very few errors	Appropriate use of elements of style Uses correct grammar, spelling, and punctuation with few errors	Some use of elements of style Contains frequent errors in grammar, spelling, and punctuation	Little or no use of elements of style Many errors in grammar, spelling, and punctuation, makes reader's comprehension difficult

	Governor's	School Application Sco	ore Page
Portfolio Require	ments- 75% of tots	al score	
Research Project			
Indicate the score give	en hy each evaluator		
Reader 1 score:	+ Reader 2 score	= Total Score/2	(out of 18 total)
	+ Redder 2 secte.	10001002	
Timed Essav			
Indicate the score give	en by each evaluator:		
Reader 1 score:	+ Reader 2 score:	= Total Score/2	(12 max)
<b>Article Annotation</b>			
Indicate the score give	en by each evaluator:		
Reader 1 score:	+ Reader 2 score:	= Total Score/2	(12 max)
Podcast/Video			
Indicate the score give	en by each evaluator:		
Reader 1 score:	+ Reader 2 score:	$\_$ = Total Score/2 (	6 max)
Portfolio total- out o	f 48		
Recommendation	s and Achievement	ts- 25% of total score	
I eacher Recommend	lations	Cother Teesher/	$- 4$ $\sqrt{2}$ (max 18)
Math teacher:	+ Science Teacher	+ Other Teacher/A	$Adult \_ = Average/2 (max 18)$
Canoon Highlighter A	ativities Desearch a	nd Honors	
Activity/Program	+ Hopor/Recogn	nition =	(may 12)
			_(max 12)
Unweighted GPA in S	TEM Coursework only	y x2 (max 18)	
	Grade Point Average	Points	
	4.0	9	
	3.9	8	
	3.8	7	
	3.7	6	
	3.6	5	
	3.5	4	
	3.4	3	
	3.3	2	
	3.2	1	
Recommendations and	nd Achievements tota	l- out of 48	
Portfolio Requireme	nts x .75 + Recom	mendations and Achieven	nents x .25 =
		Important Dates	
Data = 641 + 107 + 1	Dete/Time	A _4''+	T
Day of the week	Date/11me	Activity	Location

Saturday	October 7, 2023	GS@IP Informational	GMU Science and Tech Campus,
Tuesday	0.50 a.m. November 1 2023	Application Portal Opens	www.pwcs.edu/SpecialtyPrograms
Tuesday	November 14, 16, 17, 2023	10 <sup>th</sup> grade tours	GMU Science and Tech Campus, Manassas
Saturday	December 9, 2023 8:30 a.m.	GS@IP Informational Meeting	GMU Science and Tech Campus, Manassas
Thursday	February 1, 2024	Application Portal Closes	Application portal https://pwcvac.scriborder.com/family
Friday	February 2, 2024 4-6 p.m.	Required Timed writing	Zoom/Canvas Applicants will choose one session to atter
Saturday	February 3, 2024 10 a.m. – 12 p.m.	Required Timed writing	Zoom/Canvas Applicants will choose one session to atter
Friday	March 29, 2024	Decisions released	Application portal <u>https://pwcvac.scriborder.com/family</u>
Friday	April 12, 2024	Deadline for students to respond to admission to program	Application portal https://pwcvac.scriborder.com/family
Friday	April 26, 2024	Apply to GMU	
Saturday	April 27, 2024	Welcome meeting at GS@IP #1: Orientation to program, GMU instructions, scheduling information, course requests, forms	GMU Science and Tech Campus, Manassas *This is mandatory for all accepted studen It is strongly encouraged that a parent accompanies the student. Student must attend both session #1 and #2*
Friday	May 10, 2024	Deadline to apply to GMU	
Saturday	June 1, 2024	Welcome meeting at GS@IP #2: Orientation to program, GMU instructions, scheduling information, course requests, forms	GMU Science and Tech Campus, Manassas *This is mandatory for all accepted studen It is strongly encouraged that a parent accompanies the student. Student must attend both session #1 and #2*
Friday	August 23, 2024 8 a.m.	Mandatory New Student Orientation	GMU Science and Tech Campus, Manassas
Monday	August 26, 2024	FIRST DAY OF CLASSES!!	GMU Science and Tech Campus, Manassas

Updated October 2023