

Application for the

2024 Tennessee Governor's School

for

Computational Physics

at

Austin Peay State University

General Information

The Tennessee Governor's Schools offer Tennessee high school students intensive learning experiences virtually or on postsecondary campuses. Each school system is encouraged to share the Governor's School information and applications with strong students who meet the criteria listed below. Nominations for the Tennessee Governor's Schools must be made by high school educators who can speak to the student's potential for success in the program. Each Governor's School convenes an application review committee to select the students invited to attend each school.

Governor's School for Computational Physics Austin Peay State University June 2 - June 21, 2024

The School for Computational Physics focuses on the application of computational methods to problems in all fields of science and engineering. The school will take advantage of our centralized location to Oak Ridge National Laboratory, and the National Space Science Technology Center in Huntsville, Alabama. At the Governor's School for Computational Physics, you will earn four hours of college level credit developed to provide you with a rigorous introduction to the computational methods used by scientists and engineers. The courses will cover selected topics in calculus and vector analysis, numerical differentiation and integration, and computational solutions to differential equations. You will participate in group projects where you will develop physical models and experimentally test them. During the three weeks, you will learn more about career options in science and engineering through discussions with scientists and research engineers at the National Space Science Technology Center, and Oak Ridge National Laboratories during our weekend field trips.

Prerequisites: Students applying for the School for Computational Physics must have completed or be scheduled to complete a course in pre-calculus (including trigonometry) prior to the beginning of the program and have an overall GPA of 3.2 or higher. Completion of a year of either chemistry or physics is desirable but not necessary.

Application deadline: January 19, 2024

Submitting the Application:

Nominating educators should electronically submit completed applications following directions provided by the respective Governor's School(s). Applications submitted directly by students will **not** be accepted. The student may keep a copy of the application, excluding the confidential *Teacher Reference* forms and the confidential *Counselor/Administrator Verification* form; the nominating educator should keep one complete copy of the submitted application package.

<u>Application Submission Instructions</u>

Ensure applications are complete, arranged in the correct order (listed in the box below), and contain all required signatures and documents as outlined.

- 1. Nominating educators (usually the counselor) must submit applications via email (governorsschool@apsu.edu) no later than the deadline listed on page 2.
- 2. Each Governor's School has specific essay and writing sample questions. All questions must be answered and submitted with the application packet.
- COUNSELOR or ADMINISTRATOR: GPA, numerical test scores, focus elective, etc., must be included, if available. Please note that PSAT, SAT, and ACT scores are not mandatory, but school administrators are strongly encouraged to include this information if available. FOR GSCP, MATH SCORES ARE REQUESTED.
- 4. Students are to provide two teachers' names to counselor (see school-specific list on page 9) to complete the confidential *Teacher's Reference* forms. The completed reference forms should be returned directly to the counselor. The deadline to return the recommendation is up to the counselor (as long as the entire packet is received by the program by the deadline on page 2).
- 5. An official transcript must be included in the application packet.
- 6. Please do not include photos or resumes.

Governor's Schools of Tennessee - Application Checklist
Is this application complete?
☐ Applicant Information Form
☐ Completed by applicant/parent/guardian
☐ Certification of Application
☐ Signed by applicant, RANKING of schools must be completed
☐ Signed by parent/guardian
☐ Signed by counselor/administrator
☐ Student Achievement Information
☐ MUST BE COMPLETED and signed by counselor/administrator
☐ Confidential Teacher Recommendation 1
☐ Completed and signed by teacher 1
☐ Confidential Teacher Recommendation 2
☐ Completed and signed by teacher 2
☐ Official Transcript
☐ Specific Questions referred to on page 4
☐ Student responds to each question

Governo	r's Schoo	Is of	Tennes	see - Applic	ant l	nformatio	n F	orm
		S	tudent Ir	nformation				
Last Name				First Name		Mid	ldle N	lomo
Lastivanie				riist Name		IVIIC	iule iv	lame
, TN								
Mailing Ad	dress			City	1	Zip Code	TI	N County
Phone			Altern	ate Phone		Email A	ddres	 SS
	□ Fem			□ Native Ameri□ Asian□ Hispanic or L		□ Black □ White □ Othe	е	ican American
Date of Birth Month/Day/Year	Gend	er		Race	(select a	all that apply)		
□ US Citizen □ Permanent Resident Alien					reign Ex ident	change		
Residence Status	Other Residence Status							
		D	. /C!	I ££ !				
		Paren	it/Guardi	an Information				
Parent/Guardian Name Relationship to Applica					to Applicant			
						, Т	N	
			Zip Code					
Work Phone Co			ell Phone		Email	Add	ress	
			School In	formation				
School Name District Name								
Counselor Na	ame			Phone		E	mail	
						_ 7	ΓN	
Mailir	ng Address				City	,		Zip Code

Application Questions

Instructions

In 250-500 words discuss the area of science, engineering, or mathematics that interests you the most. Include your plans for the future in pursuit of that interest, and how participation in the Governor's School for Computational Physics will help you achieve that goal. You may attach a separate page if necessary.

Governor's Schools of Tenn	essee - Certification of Application
Preferen	nce Indication
Any student applying to multiple Governor's Schools	Ranking Governor's School
MUST rank the schools in order of preference on	Agricultural Sciences
this form only (1=most preferred, etc.). It is not	Arts
necessary to rank schools to which the student will	Computational Physics
not apply.	Emerging Technologies
not apply.	Humanities
	Innovation and Entrepreneurship
	Integration of Biological & Statistical Sciences
	International Studies
	Prospective Teachers
	Sciences and Engineering
	Scientific Exploration of Tennessee Heritage
Student	t Assurances
this form are true and accurate; any misrepresentation or termination should I already be enrolled in a Tennessee Go By making this application, I and my parent/guardian agreet School and the respective university for the purpose of dete records will be kept confidential and used only for determining	to the release of any necessary school records to the Governor's armining eligibility. I/we understand and agree that such schooling admissibility to the Governor's School. Students who do not admissibility will not be considered for the Governor's Schools.
Applicant's Signature	Date
Parent/Gua	rdian Assurances
application procedures. I acknowledge that the Governor's S	and give my permission for my son/daughter to proceed with Schools may offer university course credit and grades which will d its employees to release any information necessary for this
Parent/Guardian's Signature	Date
	Assurances
I nominate the applicant listed above for the Tennessee Gorand the prerequisites of the Governor's School to which the	vernor's School and certify that the applicant meets the criteria application is made. I recommend this student for admission to ersity during summer session 2021, and for enrollment in university
courses which may or may not allow the student to earn po	ostsecondary credit and grades.
Nominating Educator Printed Name	
Nominating Educator Signature	Date

Governor's Schools of Tennessee - Student Achievement Information

To the counselor/school administrator: The student listed below is applying for selection to a Tennessee

Governor's School. A complete application requires the following information and verification from you. While information pertaining to some of the following items may not be available for all students, please include all available information. Use the latest scores available. If your school does not rank, enter "do not rank" or "none."

available. If your	school does not	rank, enter "do not					
			Student Informa	ition			
	Last Name		F	irst Name	Middle Name		
□ 10 th □ 11 th							
Current	Class Size	Class Rank	"HOPE S	Scholarship GPA"	Cumulative GPA		
Grade							
☐ CTE (specify <u>career cluster</u>) ☐ Science and ☐ Humanities ☐ Fine Arts ☐ AP/IB ☐ Other (specify) Math							
			Elective Focu	ıs			
academically q	ualified, and/	or you would not	recommend this	s set forth in the applic student for a Governo	cation packet, is not r's School, then the student		
is ineligible and	d an applicati	on should not be	submitted.				
			Achievement To	ests			
Test (list others of			ninistered	Score	Percentile Ranking(s)		
Current State A	chievement T	est					
			Antitudo Toc	te			
Tost		Grade Adr	Aptitude Tes		Parcentile Banking(s)		
Test	ito	Grade Adr	ninisterea	Score	Percentile Ranking(s)		
PLAN Composite							
ACT Composite							
ACT Science	20						
PSAT MATH							
PSAT Writing							
SAT Verbal							
SAT Verbai							
SAT Writing							
	toot(o)						
SAT II - specify test(s) Any Additional Relevant Test Scores							
Name of Test		Grade Adr		Total Score / Subscores	Percentile Ranking(s)		
				Subscores			
		Att	endance and Di	scipline			
				2023-2024 (to date)			
Number of days absent					(111110)		
Number of disc		rals					
	(please explain or attach disciplinary record on separate sheet)						

Counselor/Administrator Verification				
Please provide narrative comments about this student to help with our evaluation. Narrative comments are extremely helpful to the selection committees during the evaluation process. Use a separate sheet if necessary.				
2. Have you reviewed the student's academic records?	☐ Yes ☐ No			
3. Does the student meet the prerequisites of the Governor's School(s) to which this application is made?	□ Yes □ No			
In your opinion, how academically qualified is the student for the Governor's School experience?	☐ Highly Qualified☐ Qualified☐ Marginally Qualified☐ Not Qualified			
I certify to the best of my knowledge the above results are accurately reported.				
Counselor/administrator's Printed Name				
Counselor/administrator's Signature	Date			

Governor's Schools of	Tennessee – Teacher Rec	commendation Guide				
The two confidential Teacher Recommendation forms should be completed as follows:						
Governor's School	Teacher Recommendation 1	Teacher Recommendation 2				
Agricultural Sciences	Applicant's choosing	Applicant's choosing				
Arts	Arts area teacher	Applicant's choosing				
Computational Physics	Science teacher	Math teacher				
Emerging Technologies	Science teacher	Math teacher				
Engineering	Science teacher	Math teacher				
Humanities	English teacher	Applicant's choosing, preferably in humanities discipline				
Innovation & Entrepreneurship	Technology or business teacher	Applicant's choosing				
Integration of Biological & Statistical Sciences	Science teacher	Math teacher				
International Studies	Foreign language teacher, if available	Social studies teacher, if available				
Prospective Teachers	English teacher	Applicant's choosing				
Sciences & Engineering	Science teacher	Math teacher				
Scientific Exploration of Tennessee Heritage	Social studies or science teacher	Humanities or arts teacher				

Please list the two teachers from whom the applicant is requesting confidential teacher Recommendations from.					
	Name Subject				
Teacher 1					
Teacher 2					

Governor's Schools of Tennessee - Confidential Teacher Recommendation					
Student Information					
Last Name	First Name	Middle Name			
Educator nominating applicant:	Dead	dline to return teacher recommendation			
To the teacher: The above-referenced student is applying to attend one of the Tennessee Governor's Schools, an intensive residency or virtual program for mature, gifted, and talented students. This applicant has designated you as one of his or her teachers of reference. This recommendation form is a critically important part of the student's application and will have a significant role in the selection process. Please provide us with a candid, frank, and complete assessment of this student's maturity, attitude, work commitment, and creativity. This form will not become a part of the student's regular school records; it will be used solely by officials of the Governor's School to aid them in the selection process. The contents of this form will not be disclosed to the applicant or his/her parents/guardians. The Governor's School officials greatly appreciate your help in this selection process.					
Please return this completed form		by the date listed above.			
How long have you known and worked with this applicant?					
2. In what situations have you served as this applicant's teacher?					
3. Please evaluate this applicant in the areas below, comparing him or her with similar outstanding students you have had in the past:					
Ability to learn Learns very quickly Learns readily Average Must work hard to learn Does not learn easily	Attitude toward work Outstanding Above Average Average Can be indifferent Lacks commitment	Dependability/consistency ☐ Always dependable ☐ Above average ☐ Average ☐ Occasionally unreliable ☐ Usually unreliable			
Initiative ☐ Self-directed/motivated ☐ Usually independent ☐ Completes work assigned ☐ Needs some prodding ☐ Very hesitant	Judgment ☐ Exceptionally good ☐ Above average ☐ Average for a teenager ☐ Occasional poor judgments ☐ Frequent poor judgments	Maturity ☐ Extremely mature ☐ Above average ☐ Average teenager ☐ Somewhat mature ☐ Very immature			
Relations with others Exceptionally good Above average Average Occasional conflicts Many conflicts	Quality of work Excellent Very good Average Below average Very poor	Quantity of work ☐ Unusually high output ☐ Above average ☐ Average output ☐ Not a great producer ☐ Low output, slow			
4. How would you describe the applicant's punctuality? ☐ High ☐ Average ☐ Low					
□ Fligh □ Average □ Low					

Governor's Schools of Tennessee – Confidential Teacher Recommendation (cont'd)
5. What is your best judgment about this applicant's emotional maturity and stability to deal with an intensive residency program in which he/she will meet new people, face new situations, and encounter new challenges during the weeks of the program? Could this student adapt to a virtual program?
 □ This applicant will adapt readily to the changes and challenges and will be a successful participant. □ This applicant should be able to adapt to the changes and challenges with minimal adjustment. □ This applicant should succeed but will have some difficulty dealing with the stress. □ This applicant may have some difficulty dealing with the stress and may not be successful. □ This applicant will have great difficulty dealing with new situations and challenges.
6. This applicant's outstanding personal qualities are:
7. The personal qualities this applicant should strive most to improve are:
8. Please indicate your overall judgment about this applicant:
 □ Very highly recommended, an outstanding student who will do well in the school. □ Highly recommended, a very good student who will be successful in the school. □ Recommended, a good student who will participate effectively in the school. □ Recommended with reservations, a good student but he/she may present some problems. □ I do not recommend this student.
9. Summary Comments: We must select a relatively small number of students from a large pool of exceptional applicants. Please tell us something about this student that is not reflected in any of the above ratings which will help us make a decision. What makes this applicant truly exceptional? Summary comments are extremely important to the selection committees, and reference letters are acceptable. If you need more space, you may attach another sheet.
Name
Signature

Governor's Schools of Tennessee - Confidential Teacher Recommendation							
Student Information							
Last Name		First Name		Middle Name			
Educator nominating applicant: Deadline to return teacher recommendation							
To the teacher: The above-referenced student is applying to attend one of the Tennessee Governor's Schools, an intensive residency program for mature, gifted, and talented students. This applicant has designated you as one of his or her teachers of reference. This recommendation form is a critically important part of the student's application and will have a significant role in the selection process. Please provide us with a candid, frank, and complete assessment of this student's maturity, attitude, work commitment, and creativity. This form will not become a part of the student's regular school records; it will be used solely by officials of the Governor's School to aid them in the selection process. The contents of this form will not be disclosed to the applicant or his/her parents/guardians. The Governor's School officials greatly appreciate your help in this selection process. Please return this completed form to the applicant's nominator by the date listed above.							
1. How long have you known and worked with this applicant?							
2. In what situations have you served as this applicant's teacher?							
3. Please evaluate this applicant in the areas below, comparing him or her with similar outstanding students							
you have had in the past:							
Ability to learn ☐ Learns very quickly ☐ Learns readily ☐ Average	Attitude toward ☐ Outstanding ☐ Above Avera ☐ Average	ı	□ Alw	dability/consistency ays dependable ove average erage			
☐ Must work hard to learn ☐ Does not learn easily	□ Can be indif□ Lacks comm			casionally unreliable Ially unreliable			
Initiative ☐ Self-directed/motivated ☐ Usually independent ☐ Completes work assigned ☐ Needs some prodding ☐ Very hesitant Relations with others	Judgment ☐ Exceptionally ☐ Above avera ☐ Average for ☐ Occasional p	ge a teenager poor judgments or judgments	□ Abd □ Ave □ Sor □ Ver	remely mature ove average erage teenager mewhat mature y immature			
□ Exceptionally good□ Above average□ Average□ Occasional conflicts□ Many conflicts	☐ Excellent ☐ Very good ☐ Average ☐ Below avera	ge	□ Abo □ Ave □ Not	usually high output ove average erage output a greatproducer v output, slow			
4. How would you describe the	e applicant's punctua	ality?					
☐ High ☐ Average ☐ Low			☐ High ☐ Average ☐ Low				

Governor's Schools of Tennessee – Confidential Teacher Recommendation
(cont'd)
5. What is your best judgment about this applicant's emotional maturity and stability to deal with an intensive residency program in which he/she will meet new people, face new situations, and encounter new challenges during the weeks of the program? Could this student adapt to a virtual program?
 □ This applicant will adapt readily to the changes and challenges and will be a successful participant. □ This applicant should be able to adapt to the changes and challenges with minimal adjustment. □ This applicant should succeed but will have some difficulty dealing with the stress. □ This applicant may have some difficulty dealing with the stress and may not be successful. □ This applicant will have great difficulty dealing with new situations and challenges.
6. This applicant's outstanding personal qualities are:
7. The personal qualities this applicant should strive most to improve are:
8. Please indicate your overall judgment about this applicant:
 □ Very highly recommended, an outstanding student who will do well in the school. □ Highly recommended, a very good student who will be successful in the school. □ Recommended, a good student who will participate effectively in the school. □ Recommended with reservations, a good student but he/she may present some problems. □ I do not recommend this student.
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Name
Signature