

The Governor's School of New Jersey



Application for the 2025 Governor's School Program in the Sciences at Drew University July 6 – July 26, 2025

Please read the entire package.
Application materials that are incomplete, do not conform to the application instructions, or do not meet deadlines will not be considered.

PROGRAM OVERVIEW

The Governor's School of New Jersey Program in the Sciences (GSS) brings the best science and mathematics students of the state together for a three-week summer enrichment program hosted by Drew University. The program exposes these exceptional scholars to courses, laboratories, team research projects, and other special events that encourage them to explore a career in science and math, including a Career Day, where alumni join other professionals in sharing their experiences with the scholars.

There are no examinations or grades. The program emphasizes group learning and collaboration within a supportive academic community of fellow scholars, counselors, faculty, and staff. The program also seeks to foster social interactions between the scholars to support and enhance the academic experience. Consequently, scholars experience a taste of what college will be like.

The program is free of tuition and fees, as it operates with generous donations from public, private and corporate sponsors. Scholars for this summer's program are selected based on the excellence of their academic performance, written essays, standardized test scores, math and science teacher recommendations, and extracurricular activities in and out of science. The program will provide a unique opportunity for the scholars to explore the sciences more deeply while sharing their passion for science with a community of students with similar interests. We plan for the 2024 to be held in-person on Drew's campus.

ELIGIBILITY

To be considered for the Governor's School in the Sciences, a student must meet the following criteria:

- The student must be a New Jersey resident and be a high school junior during the 2023-2024 school year.
- The student must have a very strong interest in the sciences and be committed to the acquisition of knowledge and the pursuit of opportunities in that field.
- The student must commit fully to the demanding schedule of the 3-week. As the full commitment to both academic and social portions of the program is expected, the student should not engage in other activities, classes, employment, or other summer program while the program is in session.
- The student must be one of the top students in his or her school. The student should demonstrate a broad interest in the sciences, have primarily "A" grades in honors math and science classes and outstanding scores on standardized achievement tests. However, students who have demonstrated very strong scientific abilities outside the classroom can still be strong candidates for the Governor's School even with weaker standardized test scores.
- Competitive candidates often rank in the top 5% of their class and score above the 90th percentile on standardized tests. However, a student whose standardized test scores are below the 90th percentile but rank among the best in their school **are still encouraged to apply** if they are otherwise qualified.

The Governor's School encourages all qualified applicants regardless of sex, race, color, creed, national origin, or physical handicap.

PROGRAM DESCRIPTION

Core courses in a variety of different areas of science and mathematics (anthropology, biology, chemistry, mathematics, physics) address aspects of science and mathematics not usually seen in either high school or in the first year of college. Each student takes three core courses. The core courses offered in 2024 were:

- Molecular Orbital Theory
- Human Evolution
- Modern Physics
- Neurobiology
- Chemistry Principles in Living System
- Molecular Biology of Cancer

Laboratory courses provide the scholars with innovative experiments. Each scholar takes one lab course. During the last in-person program, labs were:

- Experiments in Forensic Anthropology
- Experiments in Organic Chemistry
- Experiments in Computer Science
- Experiments in Biochemistry

Team Projects provide scholars with the opportunity to work in small teams under faculty guidance on mini-research topics. Results are presented at The David Miyamoto Scholars Conference. There were five team projects in 2022:

- Project in Archaeology
- Project in Chemistry
- Project in Mathematical Physics
- Project in Psychology
- Project in Environmental Biology

Special Events include colloquia speakers, Career Day, Talent Show, and The David Miyamoto Scholars Conference. Colloquia speakers at the 2024 program were:

Thinking about thinking, Dr. Minjoon Kouh

Thinking, much like breathing, is a vital and natural part of our existence. What might be the relevant computational principles and mechanisms that underlie this mental capacity, whether performed by a biological organism or an engineered system? What hardware and software might be necessary? In this talk, we will explore some interesting ways to think about thinking, by drawing on recent empirical findings and theoretical perspectives from neuroscience and computer science research.

Welcome to Environmental Consulting, Michelle Bouwman

Environmental consulting is a dynamic industry that uses science, engineering and policy to manage environmental issues and create a safe and healthy environment for all. Michelle Bouwman, LSRP will describe the history and science behind remediation of environmental contamination, including a discussion of career paths in the environmental sector, and a walk through a case study of a real clean-up site in New Jersey.

Science Communication: How and Why, Dr. Brienne Barker

When we imagine the job of a scientist, we typically think about a solitary individual working at a lab bench and we don't imagine much about communication. When scientists think about aspects of their job that involve communication, they often imagine writing grants or publications directed at other researchers in the field. While we may not think as much about communicating research results and the process of science to the public, these practices are integral to ensuring public support for and understanding of the scientific enterprise. In this session, learn why it is critical that academic scientists communicate with the public and explore best practices for science communication.

Thoughts about My Life as a Science Guy, working in Research, Dr. Bill Cheswick

I've been a science guy since I was seven years old. Broad technical interest has led me on a wonderful, wandering career path, including more than a decade at Bell Labs, co-founding a startup, and, lately, mentoring young folks. It has all worked out very well, and I hope I can help you to have similar success by passing on things I wish I had known as a teenager. I will show off some inventions and ideas that I am particularly proud of, describe a bit about life in a corporate research lab and about the people who work there, some things that may help you pick your life path, and how to save and invest to have enough money to enjoy your retirement.

THE SELECTION PROCESS

To apply for the Governor's School in the Sciences, students must be nominated by their high school's nominating committee. If the high school's junior class contains at most 325 students, only one student may be nominated for each Governor's School program. Two students may be nominated for each Governor's School program if the high school's junior class has between 326 and 650 students. Three students may be nominated only if the junior class comprises more than 650 students.

Students chosen by their high school's nominating committee are termed "nominees." The nominee is ultimately responsible for providing all necessary forms and information to their high school and working with the high school officials to ensure that the completed application package (including official transcripts, copies of PSAT scores, and the principal's signature) is submitted before the deadline. The high school officials compile all application materials (including the two letters of recommendation) and submit the full application as a single PDF document that conforms to the following naming convention: **Last Name of Nominee_First Name of Nominee_County.pdf** (ex. **Jones_Mary_Monmouth.pdf**) before the deadline. **The application must be submitted by the high school, NOT the nominee, directly to the GSNJS google form linked [HERE](#).** **The full application must be submitted on or before January 10, 2025, 11:59 p.m.**

The Governor's School will confirm receipt of the application by late-February in an email to the nominee and the school counselor listed on the application. At Drew University, a panel of professors, researchers, and educators will review nominees' applications. Using the criteria below, this selection committee will choose the scholars and invite those students to attend the Governor's School. The committee's decision will be emailed to the student on **April 10, 2025**. **Students who are selected, AND a parent/guardian, must then sign and return a commitment form. BOTH signed commitment forms must be submitted on or before April 17, 2025, 11:59 p.m.** If both commitment forms are not received by April 17, 2025, 11:59 p.m., the student's acceptance to the Governor's School may be rescinded. The admissions process is very competitive; in recent years, 20% - 25% of nominees have been offered admission.

SELECTION CRITERIA

The selection committee for the Governor's School in the Sciences aims to craft a student body made up of New Jersey's most talented and enthusiastic students. Our student body should be diverse in myriad ways. Our students should possess a great range of gifts in technology, the arts, humanities, and the sciences. Overall, the committee chooses the nominees who will best take advantage of the opportunities presented by the Governor's School.

Decisions are based on the following qualitative and quantitative criteria:

- High school transcript and class rank, which should demonstrate that the student is at or near the top of the class.
- Essays and reasons for wanting to attend the Governor's School.
- Letters of recommendation from science and math teachers.
- Extracurricular activities, work experience and community service pursuits.
- Academic and extracurricular honors and accomplishments.
- Standardized test scores (PSAT strongly preferred).

We expect Governor's School scholars to exhibit great creativity and a unique passion for the nature of our Governor's School. We look for students who have shown a strong interest in science and mathematics, as well as an open mind and the ability to work on a team to explore these interests further. We want to know what a student hopes to gain from the Governor's School experience, as well as what he or she hopes to contribute to the program. In general, nominees who have demonstrated a fervent interest in science and mathematics both inside and outside of the classroom will be most successful in the admissions process. A student with perfect standardized test scores but only superficial interest in the nature of the school is not a competitive candidate. Of course, our scholars are not only devoted to science, but also have outstanding test scores and rank at the absolute top of their class. We are privileged to choose the best of the best.

CONTACT INFORMATION

Dr. Adam Cassano, Director

Yumi Kouh, Administrative Manager

Web: <http://www.drew.edu/governors-school/> (*Sciences only*)

Email: Governor's School in the Sciences

<http://www.nj.gov/govschool/> (*all programs*)

govschool@drew.edu

Telephone: (973) 408-3605

APPLICATION INSTRUCTIONS

The nominee and the high school prepare the following application materials in the order instructed. The high school then compiles the full application as a single PDF document with the following naming convention: “Last Name of Nominee _ First Name of Nominee _ County.pdf” (for example, “Jones_Mary_Monmouth.pdf”). The application must be submitted by the high school, NOT the nominee, via Google Form.

| Materials (in the following order) | Prepared by |
|---|---|
| Step 1: Application Cover Sheet (signed by the nominee and parent/guardian) | Nominee |
| Step 2: Online Student Application Information Form Visit the Governor’s School in the Sciences website at: https://drew.edu/governors-school/ Follow the link to the 2025 Online Student Application Information Form. Complete all fields and click on the “Submit Application Data” at the very end of the form. You will receive a confirmation email immediately following submission. Print all the applicant data contained in the email. Include the printed document as a part of the application. | Nominee |
| Step 3: Nominee’s Checklists. | Nominee |
| Step 4: Principal’s Checklist | High School |
| Step 5: List of extracurricular activities in order of their importance to the nominee, with emphasis on activities requiring a substantial amount of time commitment. These can include school sponsored activities, work experience, community service, as well as science, artistic or athletic programs. Be sure to include leadership roles and the amount of time spent on these activities. Along with this list, please note any awards and/or honors (academic or extracurricular). | Nominee |
| Step 6: Two essays. <i>EACH ESSAY IS LIMITED TO ONE PAGE, SINGLE-SPACED, 12-POINT FONT.</i> Essay 1) Why would you like to attend the Governor’s School in the Sciences? Explain what you hope to gain from and contribute to the program. Be sure to include why you believe you would be a good fit for the program, your scientific interests, and how they have developed. Essay 2) What do you believe is the most interesting scientific challenge for study today? Why is it interesting to you, and how should science address this challenge in the near future? | Nominee |
| Step 7: Two letters of recommendation <u>with original signatures</u> . Letters should be confidential and not available to the applicant. One must be from a science teacher and the other must be from a mathematics or a computer science teacher. A letter that is unsigned or not from a science or mathematics teacher will <u>NOT</u> be considered. Additionally, if both letters of recommendation are from two science teachers or two math teachers, only ONE letter will be considered. | High school collects and attaches them into the application packet. |
| Step 8: Official transcript including the junior year. (Please do not upload the same transcript that is already included in your original application packet. Only the updated transcript.) This must be an official transcript and include the school’s seal and/or any signature(s), if required or indicated on the transcript. If the junior year grades are not available before the application deadline, the high school should upload an updated transcript at this link on or before February 14, 2025, 11:59 p.m. It is the nominee’s responsibility to ensure that the junior year grades have been submitted by the school. If junior year mid-term grades will not be available by February 18, the school must notify the program, and indicate the earliest date they can be provided. | High School |
| Step 9: Official 2024 PSAT/ SAT Scores. (Please do not upload the same scores that is already included in your original application packet. Only the updated/ new scores.) If the most current score is not available by the application deadline and the nominee wishes to have those scores considered, they must be uploaded at this link on or before February 14, 2025 11:59 p.m. , or they will <u>NOT</u> be considered. It is the nominee’s responsibility to ensure that their PSAT/SAT scores have been submitted by their school by the deadline. If the nominee did not take the PSAT in 2024, include the 2023 scores. The nominee may include your SAT or ACT scores if they have not taken the PSAT. If the nominee has not taken either the PSAT, SAT, or ACT, please ensure that <u>the high school principal indicates this on the checklist.</u> | High School |



**2025 GOVERNOR'S SCHOOL PROGRAM IN THE SCIENCES
at Drew University
July 6 – July 26, 2025
Application Cover Sheet**

INSTRUCTIONS FOR ONLINE STUDENT APPLICATION INFORMATION FORM

Student Name (PRINT): _____

Student Email (PRINT): _____

School Name (PRINT): _____

Please visit the Governor's School in the Sciences website at:

<https://drew.edu/governors-school/>

Follow the link to the 2025 Online Student Application Information Form:

1. Complete all fields and click on the "Submit Application Data" at the very end of the form.
2. You will receive a confirmation email immediately following submission.
PRINT all the applicant data contained in the email.
3. Attach the printed document to this page.

IMPORTANT DATES

January 10, 2025, 11:59 p.m.: Completed applications must be uploaded by the high school to [2025 GSNJS Application](#) by this date. **APPLICATIONS THAT ARE SUBMITTED AFTER THIS DATE WILL NOT BE CONSIDERED.**

February 14, 2025, 11:59 p.m.: Junior grades/PSAT scores email deadline (**Only the updated transcript or PSAT/SAT scores**).

Late February, 2025: If you do not receive the confirmation of your application, please contact us at govschool@drew.edu.

April 10, 2025: You will receive an email announcing the selection committee's decision.

April 17, 2025, 11:59 p.m.: Commitment email deadline. **IF THE COMMITMENT IS SUBMITTED AFTER THIS DATE, YOUR ACCEPTANCE TO THE GOVERNOR'S SCHOOL MAY BE RESCINDED.**

STUDENT AND PARENT CERTIFICATION

___ I am a resident of New Jersey.

___ I expect to be a high school senior in the 2024-2025 school year.

___ I am willing and able to attend the entire Governor's School session.

Signature of Student

Date

This is to certify that I give my permission for the student named above to participate in the Governor's School in the Sciences at Drew University, in full-time residence.

Signature of Parent/Guardian

Date

APPLICATION CHECKLIST

NOMINEE'S CHECKLIST: **INCOMPLETE APPLICATION MATERIALS WILL NOT BE CONSIDERED.**

- Application Cover Sheet,
 - signed by me
 - signed by parent/guardian
- Online Student Application Information Form,
 - Completed and submitted the online form
 - Printed the confirmation email and attached it here.
- Application Checklist
 - Signed by me
 - Signed by the principal of my high school
- List of my extracurricular activities and my extracurricular and academic honors
- Essay 1
- Essay 2
- Two letters of recommendation with original signatures
 - Science Teacher
 - Mathematics Teacher
- Official high school transcript. If my junior year grades were not included, I will ensure that my school submit them to at this [link](#) by February 14, 2025, 11:59 p.m. once they become available (**if it needs to be updated**).
- Copies of my official PSAT (or other standardized test) scores. If my most current PSAT scores were not included, I will ensure that my school submit them to at this [link](#) by February 14, 2025, 11:59 p.m. (**if it needs to be updated**).
- I am a resident of the state of New Jersey and will complete my junior year of high school in June 2025.

I have reviewed the checklist above, and have included all necessary and appropriate application materials. All of the information submitted as part of my application is factual and truthful to the best of my knowledge.

Name of Nominee (Please Print)

Nominee's Signature

PRINCIPAL’S CHECKLIST:

- The nominee is one of our top students and has expressed a strong interest in the Governor’s School in the Sciences.
- Our school has nominated the correct number of students. (If the junior class has 1 – 325 students, 1 nominee is permitted for each Governor’s School program. If there are 326 – 650 students, 2 nominees are permitted for each Governor’s School program. If there are more than 650 juniors, 3 nominees are permitted for each Governor’s School program.)
- The nominee has provided the Application Cover Sheet the printed applicant data from the Online Student Application Information Form, this checklist, a list of activities and honors, and two essays
- I have included the two letters of recommendation
 - Science Teacher
 - Mathematics Teacher
- I have included the nominee’s official high school transcript
 - The transcript includes grades from the first marking period of the 2024-2025 school year.
 - I will submit the nominee’s junior year grades to at this [link](#) by February 14, 2025, 11:59 p.m.
- For the nominee’s PSAT (or other standardized test) scores:
 - I have included the nominee’s 2024 PSAT scores or I will submit the nominee’s most current scores to at this [link](#) by the postmark deadline of February 14, 2025, 11:59 p.m.
 - The nominee did not take the PSAT in 2024. I have included his/her 2023 PSAT scores.
 - The nominee has not taken the PSAT. I have included the nominee’s SAT or ACT scores.
 - No PSAT / SAT or ACT scores are available for this nominee.
- The application package is a single PDF document with the correct name:
Last Name_ First Name_ County.pdf (ex. Jones_ Mary_ Monmouth.pdf)
- The application will be submitted by the high school, NOT the nominee.
- The nominee is a conscientious, eager student and ranks near the top of his/her class.
- This nominee has not been nominated to more than one Governor’s School.
- The nominating high school has kept a copy of this application on file.

I have reviewed the checklist above, and have included all necessary and appropriate application materials. All of the information submitted as part of my application is factual and truthful to the best of my knowledge.

Name of Principal (Please Print)

Principal’s Signature