The Governor's School of New Jersey



Application for the

2026 Governor's School of Engineering & Technology

at Rutgers University School of Engineering

July 6 - July 31, 2026

Please read the entire package.

Applications that are incomplete, do not conform to the application instructions, or do not meet deadlines will not be considered.

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PROGRAM OVERVIEW

The Governor's School of Engineering & Technology (GSET) is a unique and intensive residential summer program that brings together some of New Jersey's most talented and motivated high school students. At no cost to their families, students spend one month of the summer following their junior year studying with the Rutgers University School of Engineering. Through team-based courses in areas such as "Robot Soccer" and research projects ranging from designing water purification systems for the developing world to using "Wiimotes" for medical rehabilitation, students collaborate on cutting-edge topics. The scholars work with peers and professors who are both very smart and very enthusiastic about engineering and technology.

GSET aims high. Scholars gain hands-on experience in research and work on challenging and open-ended problems with others who share their love for engineering and technology. Free of grades and official credit, GSET emphasizes current research trends and teamwork. The hands-on learning environment is unique and inspirational. For many of our scholars, this is their first opportunity to collaborate with other students with the same academic talent and motivation. It's no surprise, then, that our alumni consider GSET to be not just an important educational foundation, but also one of the best experiences of their lives.

Throughout the program, scholars are encouraged to take personal responsibility for their education and to develop their ideas; entrepreneurship is highly encouraged. Governor's School scholars can expect to be challenged and to work very hard. In return, they will reap the benefits of an environment in which discovery and the pursuit of knowledge are primary, but in which everyone has a lot of fun. Scholars can also expect to develop strong academic relationships with their research mentors at Rutgers, engineering professionals, and each other.

ELIGIBILITY

To be considered for the Governor's School of Engineering & Technology, a student must meet the following criteria:

- The student must be a New Jersey resident and be a high school junior during the 2025-2026 school year.
- The student must have a very strong interest in engineering and technology and be committed to the acquisition of knowledge and the pursuit of opportunities in that field.
- The student must be willing to live on campus for the duration of the program. Saturdays and Sundays make up part of the program; there will be no weekend leaves of absence.
- The applicant must be one of the top students in his or her school. The student should have primarily "A" grades in honors math and science classes and outstanding scores on standardized achievement tests. Students who have demonstrated very strong abilities in engineering outside the classroom can also be strong candidates for the Governor's School in spite of weaker standardized test scores. Competitive candidates often rank in the top 5% of their class and score above the 90th percentile on standardized tests. A student whose standardized test scores are below the 90th percentile but rank among the best in this/her school may still apply if he or she is otherwise qualified.

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

PROGRAM DESCRIPTION

<u>Core Courses</u>: Robotics - students work in teams of 4 to build and program robots to solve design challenges and complete tasks; and Physics - this course is about some of the most exciting physics of the last 100 years, how they were discovered, and what we might expect to learn in the near future.

<u>Elective Courses</u>: Each Engineering & Technology scholar has the opportunity to select two electives. The electives for previous years were: Earthquake Resistant Structures; Engineering the Way for Medical Advancements, Everything's Material! Diving into the Exciting Field of Materials Science and Engineering; Fundamentals of Micro- and Nanofabrication; Fundamentals of Radio-Controlled Flight; Game Design; Introductory Electronics for Robotics; Virtual Research Group Module Pilot Study.

Research Projects: The cornerstone of the Engineering & Technology experience is a small group research and design project, completed under the tutelage of an experienced research mentor from academia or industry. In groups of three or four, scholars investigate and attempt to solve a complex and novel problem. Each group writes a conference-style research paper and presents its results at the Governor's School Research Symposium in front of an audience of professors, dignitaries, industry members, and invited guests. At the conclusion of the research experience, scholars should expect to have made significant connections with their research mentors and to have gained scientific maturity. The project topics vary from year to year and are aimed at having representation from each engineering discipline.

The projects for previous years were: An Ensemble-Based Approach for Classification of High-Resolution Satellite Imagery of the Amazon Basin; Analysis and Construction of a Bipedal Walking Robot; Applications of E-textile Pressure Sensors; Assessment of Silver Nanorod Synthesis; Autonomously Solving Mazes with Robots; Creation and Analysis of a Hybrid Wind Turbine; Designing a Centrifugal Pump System for High Altitude Water Crises; Designing an Unmanned Aerial Vehicle (UAV) for Humanitarian Aid; Essential Tremor Measurement and Analysis; Fabrication and Characterization of Polymeric Sutures and Brain Stents; Green Roof Development in Urban Areas; Implementing A Visual Factory Check-in Silver Line; Piezoelectric Energy Harvesting with 3D-Printed Light-Up Shoe; Predicting Volatility in the S&P 500 through Regression of Economic Indicators; Temperature-Dependent Evolution Study of Sulfated Metal Catalysts Using FTIR Spectroscopy; Using Virtual Reality for an Immersive Experience in the Water Cycle; Wearable Flexible Solar Cell Charger.

<u>Site Tours / Presentations</u>: Each Engineering & Technology scholar has the opportunity to visit, or hear from, local corporations to learn about future career opportunities. The tour destinations change each year. Past year tours were conducted at PSEG; Johnson & Johnson; Silverline; Rutgers University EcoComplex; Thorlabs; Boeing; Bristol-Myers Squibb; Lockheed Martin.

<u>Guest Speakers</u>: Distinguished guest speakers are a part of each year's program. These speakers are leaders in either academia or industry and are excited to share current developments in engineering as well as career advice. Scholars in earlier programs heard from: Dr. Biju Parekkadan (Biomedical Engineering Professor, Rutgers School of Engineering); Dr. Wise Young (Neuroscience and Biomedical Engineering Professor, Rutgers School of Engineering); Mike Swift (founder of Major League Hacking); Dr. Thomas Papathomas (Psychology and Biomedical Engineering Professor, Rutgers School of Engineering); Dr. Franklin Moon (Civil & Environmental Engineering Professor, Rutgers School of Engineering); Dr. Prabhas Moghe (Biomedical Engineering Professor, Rutgers School of Engineering)

Professor, Rutgers School of Engineering)

Enrichment Activities: A number of supplementary activities reinforce ideas in engineering.

- Life Skills Days provide exposure to many important skills an engineer needs to know yet may not have seen before.
- College Question and Answer session with current scholars from elite universities, a half-day simulation of the team design process, recreational athletics activities, and a student talent show.
- Activities based on admitted scholars' expressed interests are also included, customizing each year's program.

THE SELECTION PROCESS

To apply for the Governor's School of Engineering & Technology, a student must be nominated by his or her 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. If the high school's junior class has between 326 and 650 students, two students may be nominated for each Governor's School program. Three students may be nominated only if the junior class consists of more than 650 students.

Students chosen by their high school's nominating committee are termed "nominees." The guidance counselor, nominator, principal, or designated supervisor of the application process should fill out the Nomination Form for the student. After submission of the Nomination Form, the nominator should complete the Nominator Application and the nominated student should fill out the Student Application. All three forms must be submitted before the deadline in order to be considered for the program.

Applications must be completed on or before Thursday, January 8, 2026, 11:59 p.m.

The Governor's School will confirm receipt of each of the three forms using emails. Please note that incomplete applications (missing any required document) will not receive full consideration. At Rutgers, a panel of professors, researchers, and educators will review nominees' applications. Using the criteria below, this panel will choose the Governor's Scholars and invite those students to attend the Governor's School. The committee's decision will be emailed to the student on April 9, 2026. Students who are selected must then submit the online acceptance form by April 16, 2026, 11:59 p.m. If the online acceptance form is submitted after April 16, 2026, 11:59 p.m., your acceptance to the Governor's School will be rescinded. The admissions process is very competitive; in recent years, 15% - 25% of nominees have been offered admission.

SELECTION CRITERIA

The selection committee for the Governor's School of Engineering & Technology 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 students who will best take advantage of the opportunities presented by the Governor's School.

Decisions are based on the following qualitative and quantitative criteria:

- The nominee's high school transcript and class rank, which should demonstrate that the student is at or near the top of his or her class.
- The nominee's essays and reasons for wanting to attend the Governor's School
- Letters of recommendation
- The nominee's extracurricular activities and community service pursuits
- The nominee's academic and extracurricular honors and accomplishments
- The nominee's standardized test scores (PSAT preferred)

We expect Governor's 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 engineering, technology, 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 nominee 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 engineering and technology 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 engineering and technology, 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

Jean Patrick Antoine, Director Megan Holleran, Program Coordinator

 Web:
 http://soe.rutgers.edu/gset
 (Engineering only)
 Email:
 njgset@soe.rutgers.edu

 http://www.ni.gov/govschool/
 (all programs)

Telephone: (848) 445-4753

APPLICATION INSTRUCTIONS (Student and School Nominators)

The application process will be done electronically through Google Forms using three separate forms.

Nomination Form

This form will initiate the application process for the student and should be filled out by the nominator. This form is the shortest one and asks for minimalistic information about the student such as the student's name, birthdate, email address, and high school. One form should be filled out for each student. On submission of this form, the student will receive an email notifying them that they have been nominated for the NJ GSET and will receive a link to the Student Application. The submitter of the form will also receive a confirmation email from the NJ GSET. Both the student and the nominator will receive an eight-character-long alphanumeric Application ID that is unique to the student's nomination. The Application ID is required to fill out the other forms so if either the student or nominator does not receive the email containing the Application ID, please resubmit the nomination form with different emails. CLICK HERE for the Nomination Form.

Nominator Application

This form should be filled out by the nominator after the submission of the Nomination Form and the nominator will receive the link to this form after successful submission of the Nomination Form. This form can be submitted anytime before the Application deadline (January 9, 2026) and only one form should be submitted for each nominated student. This form is more extensive and will also ask for the submission of files such as Letters of Recommendations and High School Transcripts in addition to basic student and high school information. This form will also request the Application ID the nominator should have received after successful submission of the Nomination Form. On submission of this form, the nominator will receive a confirmation email indicating a successful submission. The link for the Nominator Application will be sent to the nominator through email on submission of the Nomination Form.

Student Application

This form should be filled out by the student and the student will receive the link to this form after the nominator submits a Nomination form for them. This form can be submitted anytime before the Application deadline (January 10, 2025) and only one form should be submitted by each nominated student. This form will ask the student for information about them and their family as well as the submission of files for essay prompts. This form will also request the Application ID the student should have received after successful submission of the Nomination Form. On submission of this form, the nominator, principal, student, and the student's parents will receive a confirmation email indicating a successful submission. The link for the Student Application will be sent to the student through email on submission of the Nomination Form.

In order for a student to be considered for the 2026 NJ GSET, all three of the forms must be submitted before the posted deadline (January 8, 2026). A student's application can be considered to be complete once the nominator has received all three confirmation emails. For any questions, please feel free to contact us at nigset@soe.rutgers.edu.

Document Upload (this is only for supplemental information)

In addition to these three applications, a copy of the student's junior fall grades as well as the student's standardized test scores, should be submitted using the Document Upload Form as soon as possible(no later than February 13th). <u>CLICK HERE</u> for the Document Upload Form.

ESSAY PROMPTS

The nominated student will be asked to write and upload two essays and three short response compositions in the Student Application form. Students should upload a single file for each written response. Listed below are the writing prompts.

Essay 1

Create an autobiographical sketch of your background, history, interests, and ambitions. Be sure to describe what makes you unique. (Max 1000 words)

Essay 2

Why would you like to attend the Governor's School of Engineering & Technology? What do you hope to gain from and contribute to the program? Be sure to tell us about your interests in engineering and technology, how they've developed, and any steps you have taken to explore these disciplines. (Max 1000 words)

Short Response 1

Tell us about your most meaningful extracurricular activity or interest. (Max 250 words)

Short Response 2

A relevant engineering topic is the <u>design-thinking framework</u>, where innovation is centered in a deep understanding of the problems and experiences people have and how they affect product usage and user experience. This approach helps eliminate exclusionary design. Using the design thinking framework, provide an example of an existing disparity and an engineering solution you would like to explore to solve this problem. (Max 250 words)

Short Response 3

Propose a specific engineering or technology problem you'd like to be working on ten years from now. Why is the problem interesting, and how do you hope to approach it? (Max 250 words)

DATES TO REMEMBER

January 8, 2026, 11:59 p.m.: Completed applications must be completed and submitted by the high school nominator.

APPLICATIONS THAT ARE SUBMITTED AFTER THIS DATE WILL NOT BE CONSIDERED. The applicant, the principal, and the school guidance counselor listed on the application will receive an email confirming the receipt of your application.

<u>February 13, 2026, 11:59 p.m.:</u> Student's transcripts containing junior year fall semester grades as well as Standardized Test Scores documentation should be submitted via the Document Upload Form by this date.

<u>February 21, 2026</u>: GSET Nominated Scholars Day at Rutgers, School of Engineering. Join us for a half-day program celebrating your nomination and getting an inside look at the School of Engineering

April 9, 2026: The student, principal, and guidance counselor will receive an email announcing the selection committee's decision.

April 16, 2026, 11:59 p.m.: Online acceptance/commitment form submission deadline. IF THE ONLINE ACCEPTANCE FORM IS SUBMITTED AFTER THIS DATE, YOUR ACCEPTANCE TO THE GOVERNOR'S SCHOOL WILL BE RESCINDED.

Mon July 6 - Fri July 31, 2025: The Governor's School will be held on the campus of Rutgers University School of Engineering. The program will be in session, virtually, the week of July 6 - July 10th, for online sessions that will be required to prepare students further for the program. The students will move into the dorms on Saturday, July 11, 2026, for the duration of the program. More details related to these sessions will be provided to the students who are accepted to the program.

The Governor's School of New Jersey



2026 GOVERNOR'S SCHOOL OF ENGINEERING & TECHNOLOGY at Rutgers University School of Engineering

Application Cover Sheet

STUDENT AND PARENT CERTIFICATION		
I am a resident of New Jersey.		
I expect to be a high school senior in the 2026-2027 school year.		
I am willing and able to attend the entire Governor's School session	l.	
Signature of Student	Date	
Email of Student	Phone Number of Student	
This is to certify that I give my permission for the student named above to Engineering & Technology at Rutgers University School of Engineering,		
Signature of Parent/Guardian	Date	

PRINCIPAL'S CHECKLIST

	have included all necessary and appropriate application materials. All of the of this application is factual and truthful to the best of my knowledge.
Student's Full Name (please print)	Hommator 3 Hame (please print)
Student's Full Name (please print)	Hominator 3 Hame (please print)
	Nominator's Name (please print)
This nominee has not been nominated to more	e than one Governor's School.
PSAT Scores: Verbal	Math Writing Test Date (circle one): 2024 2025
The nominee's standardized test scores are an	mong the best in our school.
Nominee's high school GPA	Number of Students in Junior Class Nominee's Class Rank
The nominee is a conscientious, eager studen	t and ranks near the top of their class.
The nominee will forward their junior I have included the nominee's 2025 F	n 2025. I have included their 2024 PSAT scores. cores. cores.
	inscript and copies of his or her PSAT (or other standardized test) scores.
	Cover Sheet, this checklist, a list of activities and honors, essay responses, and two letters high school teacher; the other may be from another teacher, a club advisor, or a mentor).
The persings has included his they are the thirty	are permitted. If there are more than 650 juniors, 3 nominees are permitted.)
	of students. (If the junior class has 1 225 students 1 nomines is permitted