

Greater Newark STEM Ecosystem (GSNE)

Spring 2026



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About GSNE

The Greater Newark STEM Ecosystem (GNSE) is part of New Jersey STEM Pathways Network (NJSPN), a program supported by Research & Development Council of NJ. GNSE is comprised of over 120 public and private organizations, focused on the counties of Essex, Morris, Passaic, Sussex, Union and Warren.

This Community of Practice focused on STEM Learning and workforce development serves as a Connector, Collaborator and Central Resource for educators & industry to supercharge STEM & career-connected learning. Through understanding the work and activities of our cross-sector partners, we co-design an educational support system that cultivates STEM and Career Ready Skills, building a future workforce of STEM-capable talent.

GNSE 2026 CONVENING RECAP

Creating Collective Impact

Growing Our Community: From Discussion to Action

On January 15, 2026 members of the GNSE came together at our annual convening help at the New Jersey Institute of Technology. This event brought together our community of business leaders, educators, and industry experts as we move past conversation and develop actionable opportunities for STEM and career-connected learning.

In light of the fact that 70% of business leaders report critical skill gaps limiting growth and innovation. New Jersey faces a critical challenge to ensure our graduates are equipped with essential skills for higher education and the future STEM workforce. This was the focus of our efforts as we work together.

Key Topics Included

- **Defining the Challenge:** The current reality of career readiness and skill gaps
- **Future Pathways:** Insights from industry collaboration, networking, and exhibits
- **Action Planning:** Define and tackle our shared challenges

Significant outcomes of the convening

Intentionality - Whether through classroom instruction, curriculum design, or informal learning experiences, students need explicit opportunities to develop skills, understand what those skills look like in practice, and receive meaningful feedback to improve. The discussions highlighted the value of common language, clear expectations, and structured tools that help learners connect their experiences to real-world applications.

Early and Sustained Exposure to STEM and Engineering Pathways - Engaging students from elementary through high school using hands-on, inquiry-based, and design-driven approaches is critical to building both interest and confidence over time. These early experiences help demystify STEM careers and broaden participation, particularly when they reflect authentic problems and workplace practices.

Real-World Relevance and Partnerships - Connecting students and educators to industry, professional engineers, and workforce-aligned experiences strengthens learning and makes pathways more visible and attainable. Speakers emphasized that collaboration across sectors is foundational to building scalable, equitable talent pipelines.

Read a detailed recap of the 2026 Convening "Creating Collective Impact"

See the **programs offered** by many of our convening table sponsors.

You can visit the Newark STEM webpage for information on the convening:

<https://newarkstem.org/2026-convening>

Also review, "The Hidden Opportunities Within the STEM Workforce Pipeline," a white paper that informs the work of the Ecosystem and the 2026 convening at:

<https://digitalcommons.njit.edu/stemshowcase/106/>

Latinas in STEM Foundation

From the Earth to the Stars: Over the Moon with Barbie

We are seeking STEM-related & community organizations to showcase at our upcoming public event, [From the Earth to the Stars: Over the Moon with Barbie](#)

Date: Saturday, March 28, 2026

Time: 11am - 4pm (set-up from 8am-10am)

Location: West New York Middle School in West New York, New Jersey

The [Latinas in STEM Foundation](#) entered into a year-long partnership with Barbie (coinciding with the launch of their Astronaut Ellen Ochoa Barbie doll), and our event centers on educating families about STEM-focused organizations/schools/opportunities in the region.

We are expecting between 500-1000 attendees, mostly families, for this indoor event from **11am - 4pm**. This is a predominantly Hispanic community. Your organization would have table space inside the venue.

There is no cost to showcase your organization. You can bring any handouts, activities, and giveaways that you'd like. No selling will be allowed.

Want to join us? Complete the [Exhibitor response form here](#). Please respond no later than March 1st, so we may confirm your participation. We would love to have you be part of this inspiring event!

GNSE 2026 CONVENING RECAP (Con't)

Join Greater Newark STEM Working Groups!

The Convening Co-Design Session "Working for Change" resulting in several [Outcomes and Action Plans](#), including the formation of two working groups focused on supporting Teacher Professional Development and developing a resource directory of STEM programs and services. Details on these working groups can be found in the Action Plan PDF.

If you are interested in participating in these groups, please email

newarkstemecosystem@gmail.com

Educator workshops at the [New Jersey School of Conservation](#) (NJSOC)

The NJSOC is proud to partner with the NJ Forest Service to "relaunch" [Project Learning Tree](#) in New Jersey. This award winning environmental education program is designed for preschool-grade 12 and provides STEAM activities and resources to engage students in learning about the environment through the lens of forests and trees. All lessons are aligned with NGSS and our workshops will also provide connections to NJ Climate Change Standards.

We have [two workshops](#) scheduled (for K-5 and 6-8 educators) in the next few months.

Early CollegeNJ STEM Month and Beyond

Program Announcements

Essex County 4-H Youth Development

<https://essex.njaes.rutgers.edu/4h/>

Learn more about upcoming FREE programs

- Computer Science 2.0 (grades 4–8) Register: <https://go.rutgers.edu/j56u6noi>
- Tech Showcase (grades K-12) Learn more: <https://essex.njaes.rutgers.edu/4h/youth/fairs/>

NJIT's Makerspace Pre-Apprenticeship Skills Training Program

Advanced Manufacturing and Mechatronics Mechatronics Workforce Development Training Program is now accepting applications for Cycle 3. This program is open to adult (18+) candidates only at this time.

<https://www.njitmakerspace.com/advanced-manufacturing-and-mechatronics-training-program>

Application Form

For form submission and other inquiries, please write to Dr. Ashish Borgaonkar at nce@njit.edu, and use the subject line "NJIT Makerspace Advanced Manufacturing Training Program Cycle 3."



Morris 4-H Events (Some in conjunction with Rutgers University)

<https://www.morris4h.org/upcoming-events>

Many events with 4-H including an All day weather event
Weather and Climate Day - February 28, 2026
9:30 - 4:00 pm Environmental Science Building, Cook Campus
Grades 9 - 12

Annual STEM Fair at East Side High School

East Side High School is excited to share the news about their 4th Annual STEM Fair, scheduled for March 19th from 9 AM to 2 PM. This event aims to celebrate and promote STEM education, showcasing innovative projects and inspiring our students to explore careers in science, technology, engineering, and mathematics.

They invite all members of the Greater Newark STEM Ecosystem to act as a partner in this event. Your expertise and involvement would greatly enrich the experience for the students and attendees. They invite you to set up a booth, present your work, or participate in panel discussions to share your insights and inspire the next generation of STEM leaders.

See report/pictures from last year by clicking [HERE](#)

NJIT Center for Pre-College Programs

JumpAhead in Chemistry

July 6-30, 2026 (M-Th) 9am - 3pm

Open to rising high school sophomores to seniors

Strengthen your understanding of chemistry fundamentals

Prepare for College Chemistry

Participate in university-level, research-driven projects

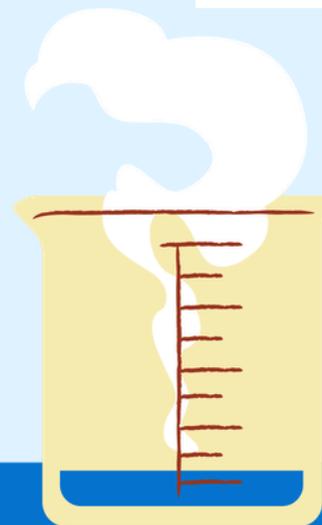
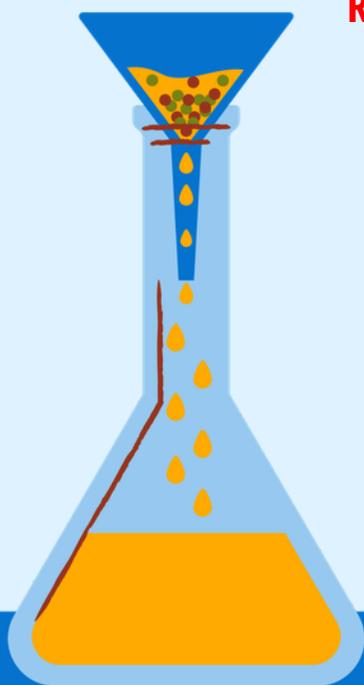
Features:

- Classroom and hands-on lab experiences
- Thematic instruction aimed at solving a real-world problem
- Lunch in the Dining Commons
- Daily recreation
- College Prep: choosing colleges that “fit,” completing your Common App, drafting your Personal Statement, understanding the FAFSA – supports continue during your senior year

Registration fee upon acceptance: \$50 (non-refundable)

Tuition: \$1000, lunch included (some need-based aid)

Register: <https://precollege.njit.edu/apply/>



INSPIRING YOUNG MINDS FOR COLLEGE ACCESS AND SUCCESS IN



SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS (STEM)

5th Annual FSI JumpStart

July 6–Aug 6, 2026 M–Th 9am–3pm

FSI JumpStart is a summer program for rising high school seniors to deepen science understanding and equip them for success in a senior year Forensic Science course.

Program features:

- Hands-on lab work in our dedicated Forensics Lab
- • Crime Scene Investigation (CSI) in our Crime Scene Labs
- Field research at sites such as the 911 Memorial & Museum, the U.S. District Court, GlassRoots, etc.
- Participating as an expert witness in a Mock Trial
- College Prep activities, including Choosing Schools; Writing Your Personal Statement; completing the Common App; FAFSA, applying for scholarships, Educational Opportunity Program, and financial aid; making professional connections
- Support for the college application process through senior year and into college

Admission criteria:

- Open to rising high school seniors taking a forensic science course during senior year, preference given to NJIT FRSC 201 for dual credit
- At least a B in biology, chemistry and trigonometry
- A strong recommendation from a science teacher
- A statement of 250-300 words expressing your interest in Forensic Science
- Active participation in the whole summer program
- Maximum enrollment: 24 students

Registration fee due upon acceptance - \$50.00 (non-refundable) Tuition - \$1550, lunch included

Limited scholarships available

[Apply Here](#)

INSPIRING YOUNG MINDS FOR COLLEGE ACCESS AND SUCCESS IN



SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS (STEM)

NJ Forensic Science Education Conference

June 30, July 1 & 2, 2026 M–W 8 a.m.–3 p.m.

Middle and high school STEM teachers and supervisors: learn practical content / techniques to teach Forensic Science to students in Grades 6-12

Our 5th Annual Conference will feature ***all new sessions:***

Special session for teachers new to Forensics, Glass, Ballistics, more...

Program features:

- Hands-on lab work in our dedicated Forensics Lab
- All materials supplied / BYOTechnology
- Lunch speakers featuring multiple aspects of forensic science
- Practical applications led by experienced high school forensic science teachers
- Networking opportunities to support your curriculum planning

Reserved, on-campus parking

Morning coffee and lunches included

Registration \$500

For more information



[To Register](#)



Students 2 Science

EMPOWERING STUDENTS TO SUCCEED WITH STEM



www.students2science.org

SPEND NJ STEM MONTH WITH US!

Do YOU...

- Love science, enjoy hands-on learning, and want to help students discover their own curiosity?
- Like guiding others, sharing what you know, or getting back into the lab?
- Want to make a real impact by inspiring the next generation of scientists?

**VOLUNTEER
TODAY!**



973-947-4880



info@students2science.org



2026 RUTGERS JUNIOR ANIMAL SCIENCE SYMPOSIUM

HANDS-ON WORKSHOPS IN THE FOLLOWING FIELDS:

- Equine
- Small Ruminant
 - *Sheep and Goat*
- Large Ruminant
 - *Dairy and Beef*
- Canine
- Poultry
- Beekeeping
- Rabbit & Cavy (*Guinea Pig*)
- Marine Life
- Animal Science Careers
- Barn and Farm Safety
- and the Animal Science Video Contest!

Register Here!



WEBSITE:

<https://nj4h.rutgers.edu/smallanimals/junior-symposium/>

ORGANIZED BY:

The New Jersey Department of Agriculture Junior Breeder Program, in cooperation with Rutgers Cooperative Extension faculty and staff.

Check out the
Session list Here:



SATURDAY, MARCH 28, 2026

LOCATION: ROUND BARN @ GEORGE H. COOK CAMPUS – RUTGERS UNIVERSITY

TIME: 8:30AM – 3:00 PM; YOUTH AND ADULTS; RAIN OR SHINE

COST: \$15 EACH YOUTH AND ADULT PARTICIPANT; CASH OR CHECK ACCEPTED

REGISTER BY: MARCH 14 2026

QUESTIONS? CONTACT: AMELIA.MINERVINI@RUTGERS.EDU OR
MB2173@NJAES.RUTGERS.EDU



COMPUTER SCIENCE 2.0 CLUB

IN PARTNERSHIP WITH APPLE COMMUNITY EDUCATION INITIATIVE

No experience necessary!

Explore the exciting world of tech through hands-on projects, coding challenges, and collaborative learning. Whether you're a beginner or a future software engineer, all are welcome. **Come build, create, and innovate with us!**



Who: Youth in grades 4th-8th



When: Weekly on Thursdays from February 12th-April 23rd



Time: 4:30pm- 6:00pm



Where: Rutgers University Newark



Food: Pizza is served at each meeting!

REGISTER NOW



OR AT THE LINK:

go.rutgers.edu/j56u6noi





ESSEX COUNTY 4-H SPRING FAIR TECH SHOWCASE

Join us for our Spring Fair Tech Showcase of both youth and adult app designs, coding projects, animations, and more!



Date: Saturday, April 25th, 2026



Time: 12:00PM-1:00PM



Inside Garibaldi Hall at the Essex County Environmental Center

621a Eagle Rock Ave, Roseland, NJ 07068

For more information:
Essex County 4-H
essex4h@njaes.rutgers.edu

To learn more and view the Project Entry Book, and to Enter/Register:
<https://essex.njaes.rutgers.edu/4h/youth/fairs/>



RUTGERS UNIVERSITY
Cooperative Extension
New Jersey Agricultural Experiment Station



Some of the STEM providers and programs that attended the 2026 Convening Benway School

An Approved Therapeutic Private Special Education School for students with Emotional Regulation Impairments and mild to moderate disabilities, integrates cutting-edge technology throughout its curriculum, providing students with hands-on experience in coding, robotics, and digital design from an early age. The school's innovation labs feature 3D printers, virtual reality stations, and collaborative maker spaces that prepare students for future careers in STEM fields.

DNA Learning Center

The DNA Learning Center at Passaic County Technical Institute offers immersive, hands-on genetics education for middle and high school students, including school field trips, Saturday workshops, and week-long summer camps. Students use the latest technologies to explore the mysteries of life and build real-world lab skills, boost their college profiles, and have fun exploring the frontiers of science.

Upcoming events:

- [Saturday DNA!](#)
- [Mystery of the Iceman](#)
- [Science Summer Camps](#)

DRIZZLE WEATHER

Drizzle Weather is a STEM education entertainment company that brings weather and climate to life through high-energy, hands-on programs for K–8 students. We make STEM unforgettable through interactive experiments, movement-based learning, and real meteorology taught by former FOX Meteorologist Jason Frazer.

Upcoming Programs & Opportunities

- [Edible Weather Workshops](#) — Weather concepts taught using food-based experiments kids can build and eat.
- The Weather Workout — STEM fitness program combining movement, weather science, and team challenges for summer camps.
- The Storm Show Assembly — Music, DJ energy, STEM demos, and weather storytelling in one high-impact show.

[NATIONAL INVENTORS HALL OF FAME](#)

NIHF offers hands-on STEM education programs that spark creativity through the inspiring real-world stories of our Hall of Fame Inductees. As a nonprofit, we partner directly with schools, districts and community organizations year-round to impact youth in grades PreK-8.

- [These summer 2026 Camp Invention sites](#) are now open for direct participant registration for grades K-6.
- If you're interested in partnering, please email adulac@invent.org to learn more or arrange a VIP visit to one of our current programs near you.
- Don't see a site near you? We also have numerous private and customized partnerships not listed above—so please reach out and ask!

[National Science Teaching Association \(NSTA\)](#)

NSTA supports districts in empowering educators and advancing student learning through custom strategies—including professional learning centered on sensemaking, leadership development, and the implementation of high-quality instructional materials—whether you're launching a new curriculum, supporting teachers, or scaling instruction across schools.

- [NSTA National Conference | Anaheim, CA | April 15 - 18, 2026](#)
- [OpenSciEd Professional Learning Workshops](#)
- [Webinar Series: Enhancing Instruction with the NSTA Sensemaking Tool](#)

[NJIT Makerspace](#)

The 25,000-square-foot Makerspace is the largest of its kind in New Jersey and houses the industrial-grade tools and technologies that today's STEM students must master in order to become tomorrow's innovators and leaders. It provides them a venue where they can test ideas, visualize, create prototypes, and apply complex technologies, machines, and materials used in state-of-the-art manufacturing.

[Little Ivy Academy](#)

Little Ivy Academy brings hands-on STEM programs—robotics, coding, app development, and more—directly to schools, camps, libraries, and youth organizations. We provide everything you need (staff, equipment, curriculum) to deliver single workshops, weekly enrichment, and more!



IEEE TryEngineering

IEEE TryEngineering empowers pre-university educators to foster the next generation of technology innovators. We provide high-quality STEM education resources, hands-on lesson plans, and programs that engage and inspire school-aged children around the world.

Browse our extensive library of free lesson plans.

Explore our Collections with TryEngineering resources curated around common STEM themes

Discover TryEngineering Summer Institute, a hands-on engineering summer camp for high school students at top universities

LECTEC

Students build and ride their own electric skateboards and scooters, turning physics, engineering, and sustainability into real-world learning. Programming for schools and organizations includes NGSS and career-aligned curriculum, educator support, and other resources to deliver the program seamlessly inside and outside the classroom.

PC University Distributors

With over 30 years in business, we represent [Infento electric vehicles](#) and [Riders robotics](#) innovative STEM programs that allow students to build life size semi-autonomous electric vehicles in their schools. We would welcome the opportunity to bring this kind of STEM innovation into your NJ classrooms in the future!



NEW JERSEY ACADEMY OF SCIENCE

Representing the state's private & public STEM professionals

THE 71ST NJ ACADEMY OF SCIENCE ANNUAL MEETING

Sensing the Future :How Molecules, Materials, and AI Will Transform Humanity

Keynote Speaker



Brenda Rubenstein, PhD

Vernon K. Kriebel Professor of
Chemistry and Professor of
Physics, Director of Data
Science Brown University

Topic

How Data Science and AI are changing
the chemical and biochemical sciences

Dr. Brenda Rubenstein is the Kriebel

Professor of Chemistry at Brown University. She was named to Popular Science magazine's 2021 *Brilliant 10* list of the top early career scientists and C&EN's 2019 *Talented 12* list of early career chemists, and has received a number of research and teaching honors including the *Camille Dreyfus Teacher Scholar Award*, a *Cottrell Teacher Scholar Award*, and a *Sloan Research Fellowship*. While the focus of her work is on developing new electronic structure methods, she is also deeply engaged in rethinking computing architectures, including quantum and molecular computers, and computational biophysics. Prior to arriving at Brown, she was a *Lawrence Distinguished Postdoctoral Fellow at Lawrence Livermore National Laboratory*. She received her Sc.B.s in Chemical Physics and Applied Mathematics at Brown University, her M.Phil. in Computational Chemistry while a *Churchill Scholar* at the University of Cambridge, and her Ph.D. in Chemical Physics at Columbia University.



April 11, 2026



8:30 AM - 6 PM



1075 Morris Ave,
Union, NJ 07083

Link to All Registration

<https://www.njas.org/event-6429176>

In Partnership with



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NEW JERSEY
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