STEAM Summer:
Science, Technology, Engineering and Math
Summer Programs, Internships, Pre-College Programs
(with some arts, social sciences, and humanities programs)

For Summer 2025

Updated 2/7/2025

***CLOSELY REVIEW:**

- In this document, an effort has been made to provide basic information on program description, eligibility criteria, deadline dates, camp dates, costs (and financial aid), and other relevant information.
    - But it is up to the applicant to review closely this information for each and any program that the student is considering.

This document is organized by:

Additional Resource:

Check with Cisco Tapia, East HS Career and College Success Navigator for other summer job and internship opportunities. He posts many of these opportunities on Schoology. He can also be reached at leonard_tapia@dpsk12.net. Office in Room 324A.

Check with Ambria Merriex, Denver Scholarship Foundation (DSF) College Advisor (9th – 12 Grades) - Email: amerriex@denverscholarship.org. Office in the Future Center is adjacent to the Counseling Center.

COLORADO

1. PROGRAMS IN COLORADO

City and County of Denver and Denver Public Schools partnership

- For youth interested in afterschool, summer enrichment programs, visit the Youth Program Locator, and find program opportunities

Denver Museum of Nature and Science Teen Science Scholar

https://www.dmns.org/about/teen-science-scholars/

THE 2025 TEEN SCIENCE SCHOLAR IS OPEN JANUARY 3 – FEBRUARY 24, 2025

TSS is intended for high schoolers from underserved and/or underrepresented communities or schools. These internships provide hands-on opportunities to carry out scientific work alongside Museum scientists while exploring opportunities in museum and STEM careers. Scholars also participate in professional development activities, including public speaking, planning for college, and honing skills for joining the workforce. At the end of the summer, scholars celebrate and present their work and experiences during a Showcase event.
In 2023, 100% of scholars said they would recommend the program to other students. 100% of scholars also reported gaining skills in:

- Using professional communication
- Being a productive member of a team
- Collaborating on projects
- Seeking out new learning experiences

Teens who come from communities that have been historically underrepresented in the sciences, individuals from disadvantaged backgrounds or schools, and/or those who will be the first generation in their family to complete a four-year college degree are strongly encouraged to apply.

Eligible Applicants Are:

- Sophomores or Juniors in the 2024-2025 school year
- Available Monday – Friday for ONE session
    - Session 1: June 4 – June 27 (no TSS held 6/19 in observance of Juneteenth)
    - Session 2: July 9 – August 1
- Interested in the sciences as a possible career
- No prior experience is required
- Must be between the ages of 14 and 17 at the time of the internship.

Teen Science Scholars Application

University of Colorado Denver: GenCyber

www.ucdenver.edu/gencyber

2025 information not yet available as of 1/28/2025

CU Denver GenCyber Summer Camp for High School Students
Application Deadline: not listed

The GenCyber Summer Camp program at the CU Denver Business School provides exciting, hands-on cybersecurity experiences for students at the K-12 level. Students will explore various aspects of cybersecurity with hands-on exercises and games, including ethical hacking, social engineering, computer and digital forensics, networking fundamentals, cyber threats, cybersecurity careers, ethics in cybersecurity, and online safety.

No previous cybersecurity knowledge is required. CU Denver GenCyber is entirely free and open to all high school students in Colorado. Camp materials, including Raspberry Pi kits, virtual labs, and games, will be provided free of charge for hands-on learning. Students will receive a Certificate of Achievement at the end of the camp. Funding is jointly provided by the National Security Agency and National Science Foundation.

Selected students will be notified by June 1, 2024. For high school students accepted to the CU Denver GenCyber camp, there will be no cost.

Dates: July 15-19, 2024
Time: 9 am - 4 pm
Format: Online
Eligibility: You need to confirm that you can attend all five days of the camp. Those who fail to attend the camp sessions won't receive the camp materials, certificate of completion, and the college credit.

Apply HERE

University of Colorado Denver: Architecture in the City

https://architectureandplanning.ucdenver.edu/academics/high-school-programs

High School Programs

The College of Architecture and Planning offers noncredit opportunities for ambitious high school students. These programs are perfect for young students interested in learning more about architecture, landscape architecture, urban planning, and urban design.

Current High School Programs:

Day Camp: June 23 – June 27, 2025 ($750)
Overnight Camp: July 19 – July 26, 2025 ($2,000)

Each camp has one scholarship available to cover the full cost of registration. Students will be selected based on financial need and an essay. **Apply for scholarships here.**

Scholarship Deadline: February 15th

All applicants will be notified of their award status by March 1. If you are awarded the scholarship, you will receive a code to complete the registration at no cost.

Architecture in the City is a summer, non-credit program offered by the College of Architecture and Planning (CAP). This is an interdisciplinary program designed for students entering their sophomore, junior and senior year of high. The camps will give participants the opportunity for a hands on experience in model building and drawing techniques while exposing them to architecture, landscape architecture, urban design, and urban planning through a design build project. Participants with and without design backgrounds are encouraged to join.

Day Camp: This commuter program will be held at the College of Architecture and Planning, Monday - Friday. Ideal for rising Sophomores, Juniors and Seniors. Previous architecture and design experience not required.

Overnight Camp: This Saturday - Saturday camp will be held at the College of Architecture and Planning, with housing provided at the City Heights Residential Hall on the CU Denver Campus. Ideal for rising Juniors and Seniors, participants of the ACE Mentor Program, or students with some exposure to architecture and design

Application HERE

University of Colorado Denver: BOLT Camp

https://engineering.ucdenver.edu/bioengineering/outreach/bolt-camp?_gl=1*4jgz5s*_ga*NTE3NTkyODMuMTcwNTQzMDMwMg..*_ga_DS36BR332D*MTcwNjIwODE3OS4yLjEuMTcwNjIwODkxMi43LjAuMA..

BOLT: Bioengineering Opportunities and Leadership Training

BOLT 2025

June 2 - 5, 2025 Register Here
June 9 - 12, 2025 Register Here
June 23 - 26, 2025 Register Here

Registration now open!

BOLT Camp

Are you interested helping others? Are you fascinated by medical technology? Come experience where engineering meets medicine at BOLT, Bioengineering Opportunities and Leadership Training, Camp. Gain a better understanding of what it means to be a bioengineer through hands-on activities with our faculty and students.

We are excited to announce the ninth year of BOLT summer camp!

BOLT is a camp for high school students that teaches about biomedical engineering and some of the exciting career options available for STEM-focused students. This in-person camp at the Department of Bioengineering at the CU Anschutz Medical Campus will be filled with interesting topics and activities designed to introduce high school students to biomedical engineering and leadership topics. **The camp will be a four-day event offered entirely in person**.

Student teams will work together to design, build, test, and iterate to create a prototype and compete in an engaging, yet laid-back design competition. In parallel, students will learn about biomedical engineering, dive into the theory of general engineering principles, and get a sneak peak of cutting-edge research. There will be many hands-on activities throughout the week and students come away with learning how to think creatively, how to interact and empathize with people who may have a disability, and how to apply their ideas to bioengineering problems.

BOLT Camp Details

Who: The camp is open to all students entering 9-12 grade in fall 2025.
Dates: June 2 - 5, 2025, June 9 - 12, 2025, June 23 - 26, 2025
Times: 8:00 a.m. - 4:30 p.m. with a one-hour lunch break
Cost: $975 (limited scholarship seats available: email Kate.Hoch@cuanschutz.edu for more information)
Location: Anschutz Medical Campus
Supplies: All supplies and meals are included.

University of Colorado Denver: Lynx Camps

https://artsandmedia.ucdenver.edu/prospective-students/lynx-camps

LYNX National Arts & Media Camps
Summer camps for high school students

About LYNX Camps:

The LYNX National Arts and Media Camps are summer immersion programs for high school students interested in the arts and music. The camps are hosted on the University of Colorado Denver campus and sponsored by the CU Denver College of Arts & Media. The camps are designed to provide students with an educational preview of the college programs offered in the College of Arts & Media while also providing students with an inspiring and memorable summer camp experience. We host high school students from throughout the U.S at the camps and occasionally even have international students attend! This creates a diverse and enriching experience as students bond over a shared passion for the arts.

2025 Camp Programs:

June 9-13, 2025 | 9:00-4:30 | One-Week Commuter Camps

- **2D Animation/Illustration** - $600
- **Audio Production/Ableton Live** - $600
- **Comic Book Character Design** - $600
- **Photography** - $600

June 15-27, 2025 | Two-Week Camp

- **Music Industry (Songwriting, Performance, Music Business, and Recording Arts)**
  - **Residential - $2,500** - Lodging in the CU Denver City Heights Residence Hall is included. Evening and weekend programming is included. All meals (breakfast, lunch, and dinner) will happen at City Heights Dining Hall.
  - **Commuter Plus - $1,800** - 9:00am-8:00pm. Evening and weekend programming is included. Lunch and Dinner are included; meals will happen at City Heights Dining Hall.
  - **Commuter - $1,200** - 9:00am-4:30pm, weekdays only. Lunch is included and will happen at the City Heights Dining Hall. Weekend programming is not included.

July 13-25, 2025 | Two-Week Camps

- **Animation (2D Animation, 3D Animation, Concept Art for Games & Animation, and Stop Motion)**
- **Filmmaking**
- **Visual Immersive Art**
  - **Residential - $2,500** - Lodging in the CU Denver City Heights Residence Hall is included. Evening and weekend programming is included. All meals (breakfast, lunch, and dinner) will happen at City Heights Dining Hall.
  - **Commuter Plus - $1,800** - 9:00am-8:00pm. Evening and weekend programming is included. Lunch and Dinner are included; meals will happen at City Heights Dining Hall.
  - **Commuter - $1,200** - 9:00am-4:30pm, weekdays only. Lunch is included and will happen at the City Heights Dining Hall. Weekend programming is not included.

Application Deadlines

- Application Opens - **November 1, 2024**
- Priority Deadline*- **March 15, 2025**
- Final Deadline- **May 15, 2025 (late applications will be considered through June 1st)**
  **Please note that some programs fill up fast. Applicants are encouraged to apply early.*
  **Students who apply by the priority deadline receive priority for admission and scholarships.*

Eligibility

The LYNX Camps are for high school students (ages 14-18) who are interested in the arts. Any student who has finished 8th grade by the start of the camp and has not yet started college is eligible to attend (we do admit students who have just completed 12th grade). Please contact us if you have any questions about eligibility.

Further information on Pricing and Scholarships -
https://artsandmedia.ucdenver.edu/prospective-students/lynx-camps/lynx-pricing

Colorado Student Leaders Institute (COSLI) (Friends of Colorado Student Leaders Institute)

https://costudentleaders.org/application

2025 COSLI Application Open: October 1, 2024-February 2025
Acceptance Decision & Notification: Early March 2025
Takes place on the University of Colorado Denver campus

Details:

- Colorado Student Leaders Institute (COSLI) is a state-legislated, summer residential program. For one month each summer, Colorado's best and brightest students, chosen from a competitive pool of applicants, live and study on the campus and earn three hours of college credit. Students choose one of two majors through which to explore an interdisciplinary curriculum: International Social Studies or STEAM (Science, Technology, Engineering, Arts, & Math), and explore diverse topics through a lecture series by university professors and 3 hands-on projects--Colorado Social Problem Lab, Short-Term Business Lab, and National History Day.
- COSLI students do not have to be formally designated as gifted and talented students, but they must demonstrate through their application that they meet the academic rigors that the program requires. At least 50% of our students must be eligible for free and reduced lunch and/or be first generation college students.
- COSLI prepares students for college by fostering leadership, independence, innovativeness, initiative, critical thinking, and creativity.

Eligibility Requirements:

- Students from Colorado public schools (e.g., local school districts, charter, federal) or non-public schools (e.g. private, parochial, homeschool) may be nominated.
- Priority is given to current 9th and 10th graders, but current 11th graders are permitted to apply and will also be considered.
- Student must be a resident of Colorado at the time of attendance.
- All students must meet the aptitude/achievement and behavior/character criteria as established by the Executive Board. The Executive Board takes the recommendations of the Advisory Board regarding program admittance. The Institute is clear that scores on tests and transcripts are only part of a holistic view of student applicants.

Selection Criteria: we weigh the following REQUIRED application components:

- Essay Questions
- Student and Parent Statements
- 2 Recommendation Forms (at least one must be from a teacher)
- Community involvement, activities, awards, life activity (work) and honors.
- Scholastic performance as shown on transcripts or attested by teachers.

- Test Scores (Aptitude, Achievement, EOCs, Pre-Collegiate, state standardized, or other)
- High school transcripts

University of Colorado Leeds School of Business:

Women in Business Case Competition

https://www.colorado.edu/business/oda/programs-high-school-students/women-case-comp

APPLICATION DEADLINE: March 30, 2025
Program Dates: June 11 - June 13, 2025

Are you up for a challenge?

Talented high school students are invited to compete in a summer case competition at the Leeds School of Business. Participants will gain real-world experience while competing in a case challenge focused on issues affecting women. It's a great opportunity to learn the values of business leadership and teamwork, while strengthening critical thinking and analytical skills. Accepted students compete to win a $1,000 scholarship to the Leeds School of Business.

Who can apply?

- The program is intended for students who identify as underrepresented, diverse, low-income, and/or first-generation. Students who are interested in gaining new perspectives on issues related to business and diversity are also encouraged to apply. Students of any gender are also encouraged to apply. All applicants will be given full consideration.
- Priority consideration for Colorado Residents and students enrolled in a Colorado High School
- Current high school juniors, during the 2024-25 academic year
- Incoming Leeds School of Business first-year students, starting the Fall 2025 semester

Apply HERE

Business Leadership Program

https://www.colorado.edu/business/oda/programs-high-school-students/business-leadership-program#accordion-695525919-1

APPLICATION DEADLINE: March 30, 2025

Program Dates: June 22 - June 28, 2025
The world of business is changing, and your perspective is needed!

Interested in creating solutions for today's business problems and gaining experience working in diverse teams while developing connections with Leeds School of Business faculty, staff, and corporate partners? If so, we invite you to apply to be part of the Business Leadership Program

(BLP) this upcoming summer. BLP is designed to provide a high-impact learning experience through a case study. Participating students will gain hands-on experience competing in a case challenge set to solve real-world business problems.

As part of the BLP program, participants are tasked with working in teams to create and implement a marketing campaign for our corporate partners. The team that creates the best solution will win a $1,000 scholarship to the University of Colorado Leeds School of Business.

Who can apply?

- The program is intended for students who identify as underrepresented, diverse, low-income, and/or first-generation. Students who are interested in gaining new perspectives on issues related to business and diversity are also encouraged to apply.
- Priority consideration for Colorado Residents and students enrolled in a Colorado High School
- Current high school juniors, during the 2024-25 academic year
- Incoming Leeds School of Business first-year students, starting the Fall 2025 semester

Apply HERE

University of Colorado Boulder: Summer EngiNearMe Program (engineering camp)

https://www.colorado.edu/engineering/enginearme

Summer EngiNearMe Program

June 16-22, 2024
On campus
Apply by April 15
Questions? Please feel free to contact ceasadmissions@colorado.edu with any questions.

Summer EngiNearMe Program
as of 1/21/2025 - 2025 dates coming soon
On campus program.

University of Colorado Boulder: K-12 Summer Camps and High School Classes

https://www.colorado.edu/sciencediscovery/programs/k-12-summer-camps-and-high-school-classes#:~:text=Our%20Summer%202022%20season%20will,online%20registration%20in%20late%20winter

K-12 Summer Camps and High School Classes

ONLINE REGISTRATION IS OPEN NOW

CU Science Discovery offers a variety of hands-on summer STEM experiences for grades K-12. Our STEM camps and high school classes are designed to inspire creativity and a thirst for knowledge, while allowing students to interact with their peers in a safe setting. Participants

are encouraged to explore topics that are of interest to them, ask questions, and share their knowledge and expertise with others. Participating in a Science Discovery summer program gives you peace of mind that your child will spend part of their summer in an environment that stimulates creative thinking and fosters growth and curiosity.

CU Science Discovery's summer camps and high school classes:

- Provide opportunities for K-12 students to explore a variety of STEM topics
- Inspire participants to think creatively and explore the world in different ways
- Are led by enthusiastic, knowledgeable, and experienced instructors, including CU faculty, graduate and undergraduate scientists
- Include project-based learning activities that are engaging, informative and fun
- Offer individualized attention and small camp and class sizes

See catalog for grade level parameters:

- ABC's of DNA
- Aerospace
- Animal Science
- Biomedical Research Bootcamp
- Computer Science and Robotics
- Creative Technology and Design
- Engineering Biology
- Chemical Engineering
- Medical Student Experience
- Neuroscience
- Microbes

Beginning and end dates for each depends on the classes. Note that classes can take place on one of two campuses - CU Anschutz Campus or CU Boulder Campus>

Registration deadlines depends on the particular class selected.

There is a cost for each class, but there are some scholarships available.

REGISTER ONLINE HERE

CU Boulder STEM Research Experience

https://www.colorado.edu/sciencediscovery/programs/stem-research-experience

STEM Research Experience

The summer 2025 *STEM Research Experience* will run from June 6 (CU Boulder) or June 9 (CU Anschutz) through July 25, 2025. The application for the 2025 program will open on January 28.

Please note this is a commuter program; we do not support an overnight/residential option at this time.

CU's Summer STEM Research Experience offers an exciting opportunity for STEM-interested teens to gain hands-on research experience in a STEM discipline. CU Boulder and CU Anschutz Medical Campus faculty and graduate students serve as Research Mentors in this six-week summer program. Each Mentor works with a pair of students, based on their research interests. Students participate in a Research Methods seminar (held each Monday) and work an additional 15-20 hours a week, Tuesday-Friday, on their research project. Specific research schedules may vary among different labs, based on the needs and timing of the research project. Readings and assignments may be assigned prior to the start of the program. Throughout the course of the program, participants will engage in the scientific research process, including reviewing scientific literature; supporting experiments; collecting, visualizing, and analyzing data; and developing a scientific poster to communicate their results. All participants will present their research at a culminating poster session on July 25.

Course details for the 2025 summer program:

- All applicants must be 16 years of age by the start date of the program on June 6, 2025. No exceptions will be made.

- **Dates:**
    - **June 6-July 25, 2025** (no programming during the week of July 4th)
    - Poster Session: July 25, 2025 (AM: Anschutz; PM: Boulder).
    - **Cost:** $2,400 and includes the following:
        - A stipend for the Research Mentor
        - A materials fee (to support the cost of research equipment and materials)
        - Professionally printed research poster to present at the poster session (one per student)
        - Research Methods seminar class that will meet once per week (on Mondays) to support all students throughout their research projects
        - Daily parking permit or bus pass (CU Anschutz Medical campus only). Note: Parking permits will not be issued for the CU Boulder campus. Alternative transportation is encouraged.

- **Note: This is a commuter program and does not offer residential accommodations. Program administrators are not permitted to offer recommendations on accommodations.**
- Course participants will be grouped by research interest and assigned to a mentor that will guide them through the learning experience. Outside of class time, students will meet with mentors in the research lab to discuss research topics, learn techniques and conduct research.
- Between live class time, Mentor + Student group meetings and completing independent research, this course will require approximately 15-20 hours each week (specific schedule TBD depending on research project).
- The course will conclude with a STEM Research Expo, in which each student will present a scientific poster highlighting the results of their summer research.

Participants are encouraged to invite family, friends and fellow researchers to join them at the expo.

Beyond the summer course, participants interested in continuing their research are often encouraged to do so by their mentors. Previous participants have gone on to publish their work with their collaborators in scientific journals and present their work at professional conferences.

Application process:
Admission to the STEM Research Experience is selective and requires an application. Completed applications will be evaluated in two rounds (see deadlines below). Those not selected after the initial review may be placed on a waitlist. Waitlisted students will be informed as soon as possible if a spot becomes available. Admissions decisions are made by CU Science Discovery. Payment will be required upon admittance to the program. Once a student has been registered and payment has been accepted, the registrant is committed to taking the spot - as a result, **no refund will be issued in the event of a cancellation**. Please consider this when determining whether or not to accept a spot.
The application for the 2025 program will open on January 28. If you are not selected in the first round, you may be placed on a waitlist. Waitlisted students will be informed as soon as possible if a spot becomes available.

• **Priority Application Deadline: February 22, 2025 11:59pm MT**
(Notification by March 15th)

• **Regular Application Deadline: March 30, 2025 11:59pm MT**
(Notification by April 14th)

Please review the application before you begin to fill out the form. Note that the application requires a short (~1 min.) video to be uploaded to the form as part of the application. You may want to create the video before beginning to complete this form.

Examples of past research topics include:
- Aerospace Engineering Sciences
- Bioengineering
- Biology
- Biophysics and Biochemistry
- Chemistry
- Computational Biology
- Ecology and Evolutionary Biology
- Electrical, Computer and Energy Engineering
- Engineering
- Geological Sciences
- Hydrology
- Immunology
- Institute of Arctic and Alpine Research

- Mechanical Engineering
- Medicine
- Microbiology
- Neuroscience
- Pharmaceuticals
- Pulmonary Science and Critical Medicine
- Renal

Note: This list is provided to give applicants an idea of what topics have been offered in past years. Each year this program relies on the willingness of graduate students to participate in the program. As such, Science Discovery cannot guarantee that a specific research topic will be offered in any given year. Topics chosen are based on the research fields represented by the mentors who have applied to participate. High school applicants will be accepted and placed based on their interests.

Important note for participants: Participants will not be permitted to select specific research projects, mentors, or topics in advance and should be open to doing a project with any of our mentors. It will be necessary for all applicants to enter this program with an open mind and a willingness to explore any number of STEM research fields. Students placed on the CU Anschutz campus will be matched with mentors prior to June 6 and will need to be responsive to emails requesting information. Students on the CU Boulder campus will attend the orientation on June 6 and participate in a "science speed dating" activity where they will meet all participating mentors and hear about their projects.
Science Discovery will do its best to match applicants with preferred mentors, but specific projects or mentors cannot be guaranteed.

To reiterate, this is NOT a residential program.

For additional information, **contact Science Discovery via email**.

University of Colorado Boulder: Engineering Summer Bridge Program

https://www.colorado.edu/engineering/summer-bridge-program-community-college-students

INFORMATION NOT UPDATED AS OF 2/7/2025

Summer Bridge Program for Community College Students
Get paid $1,500 for participating in a four-week, hands-on engineering project

This is an opportunity for high school graduates who want to attend the Community College of Aurora or the Community College of Denver to jump-start their engineering futures.

Program Details

- **Priority application deadline**: May 30
- **Cost:** Free, no application fees

- **Who can apply?**
  - **High-school graduates who have a high school diploma before July 5**
  - Must be a U.S. citizen or permanent resident
- **Important dates:**
  - **Virtual orientation session:** Thursday, June 29, 3-4 p.m.
  - **Program dates:** Wednesday, July 5, through Thursday, Aug. 3. Program runs Mondays through Thursdays; no class on Fridays
- **Two campus options:**
  - Community College of Denver, Auraria campus (1111 West Colfax Ave., Denver)
  - Community College of Aurora, Lowry Campus-West Quad Building (710 Alton Way, Denver)
- **What times?**
  - Community College of Aurora: 9:30 a.m.- 2:15 p.m.
  - Community College of Denver: 10 a.m.- 2:45 p.m.

Colorado State University's Campos EPC EnVision Program

https://www.engr.colostate.edu/outreach/summer/

Campos EPC ENvision

Campos EPC ENvision is an on-campus engineering residential learning program for rising juniors and seniors around the country.

- Mentors will help students learn about college, engineering, and what it takes to succeed.
- Students will have the opportunity to connect and create community with current students and faculty members at CSU.
- Participants will learn from current students and faculty about different types of engineering used in teaching and research labs during the academic year.

- There is no cost for attending this program.
- Students must complete all sessions to finish the program.
- The program will encompass activities from different disciplines in engineering.

Dates: May 31 - June 6, 2025

Apply HERE

Colorado State University – Mechanical Engineering STEM

https://www.engr.colostate.edu/me/summerprograms/

STEM - 2025

Summer Programs

Dream. Design. Discover.

Opportunities for middle and high school students to explore the wonders of science, technology, engineering, and mathematics (STEM).

Join CSU's Department of Mechanical Engineering for three highly interactive summer programs for middle school and high school students interested in exploring the wonders of science, technology, engineering, and mathematics (STEM). The programs will be run by CSU Mechanical Engineering faculty and student mentors dedicated to small groups, offering youth the opportunity to connect with leaders at their local university.

Held at CSU's state-of-the-art engineering and CSU Spur facilities, these exciting and educational programs will strike a balance between hands-on learning and socializing. Each day will include an icebreaker, two lessons, two activities, two social opportunities to connect with fellow students, lunch, and a debriefing. Lunch will be provided and held at interesting spots around campus, both indoors and outside.

Core science and engineering ideas will provide students with essential information to build upon and integrate throughout their lives. View the summer programs below!

Designing Your World
at Colorado State University, Fort Collins

- Dates: July 14 – 18, 2025
- Ages: 14 – 17
- Time: 9 AM – 4 PM
- Cost: $500*****

***Limited scholarships available. Contact us for more information!**

REGISTRATION
Registration will open on Monday, February 3, 2025. Last year programs filled up quickly, so please be sure to mark the date.

Engineering Your World
at CSU Spur Campus, Denver

- Dates: July 15 – 19, 2025
- Ages: 12 – 14
- Time: 9 AM – 4 PM
- Cost: $500*

***Limited scholarships available. Apply for scholarships during program registration.**

REGISTRATION
Registration is open for CSU Spur now. Sign up now, spots fill quickly.
Register for Engineering Your World - Denver

Colorado State University: Black Issues Forum

https://admissions.colostate.edu/visits-events/black-issues-forum/

Information Not Yet Updated for 2025 as of 2/4/2025

This five-day program empowers high school students to deepen their understanding of Black heritage and issues facing the Black community.

When: June 11-15, 2024

Who it's for: Students finishing their junior year in high school with a cumulative GPA of 2.8 or higher in a college prep curriculum are encouraged to attend. Many of our attendees demonstrate involvement and leadership roles within school, family, or community activities.

Where it is: This event will be held at CSU's main campus in Fort Collins, Colorado.

What it is: The Black Issues Forum is a five-day program that gives participants the chance to interact with university faculty, staff, and current CSU students. Participants take part in meaningful conversation, enhance their leadership potential, and deepen their understanding of their cultural heritage while discussing issues facing today's Black community at the local, state, national, and/or global levels.

Application

Colorado State University

General Listing of Programs: https://summer.colostate.edu/summer-programs/k12-programs/

K-12 Summer Programs Portal

CSU summer experiences for kindergarten through precollege students include credit-bearing, academic, and sport programs. Teachers may explore sustainable teaching and the benefits of movement in the classroom. These programs are offered by many CSU departments and organizations hosting events on the Fort Collins campus. Additional programs are available through collaborators such as the Poudre School District and *CSU Spur in north Denver. Further details, including registration and contacts, are available on the linked website for each program*.

Please note:

- Program and registration information will be updated throughout Spring 2025.
- Registration deadlines for most camps vary from December through May and are typically available on the program websites.

Recently Announced

Please check the websites of programs of interest for up-to-date announcements and registration deadlines. Most of our CSU programs have posted Summer 2025 information.

- Youth Sport Camps are open for registration.
- Registration for the Cybersecurity Summer Camp Program for high school students is in process.
- Food Science and Human Nutrition Summer Cooking Camps open for registration January 3.
- True Color Effects: Youth Leadership Program enrollment begins January 15.
- The Environmental Learning Center Summer Day Camps lottery window and camp descriptions are available.
- CSU Ram Camp schedules for track and field, soccer, and volleyball are beginning to post.

Credit-Bearing Programs

These programs for high school students and/or incoming first-year CSU students provide an on-campus opportunity to learn and get a feel for the college experience at CSU.

Explore Credit-Bearing Programs

Academic Programs

CSU summer programs offer a variety of experiences for a wide range of age groups. Students can learn about animals and the environment, arts and human sciences, industry and leadership, or science, technology, engineering, and mathematics (STEM).

Explore Academic Programs

Colorado State University: College of Business

https://biz.colostate.edu/academics/high-school-programs

Business for a better world

The **Global Business Academy** is a summer program for high school freshmen, sophomores, and juniors. Create great summer memories in this 10-day, action-packed experience as you meet students from around the globe and learn how to use business to create a better world.

When: July 13 - July 23, 2025
Where: CSU College of Business
Who: High school students (15-18 years old)
Must be enrolled in high school for Fall 2025
Early Admission Deadline: Feb 1, 2025
Early Scholarship Deadline: Feb 1, 2025
Application Deadline: June 1, 2025
International Application Deadline: May 15, 2025
Cost: $3750 per student, scholarships available

Expand your business skills

The College of Business's Institute of Entrepreneurship offers **high school and middle school programming** that helps students and teachers leverage their business skills.

Live like a college student
First Generation Summit is a week-long event that brings together students who are the first in their families to attend college.

Program Dates: 7/21/2025 - 7/26/2025
Applications open March 3 and close April 7
First Generation Business Summit 2025
Live like a college student and learn more about the CSU College of Business

Use tech to make an impact
IT in Business is a week-long program taught by the Computer Information Systems department that connects high school students with hands-on projects that teach them how to use technology in the business world.

Program at a Glance
Location: Rockwell Hall 139, CSU College of Business – Fort Collins campus
Length: Five sessions, 9 am - 3:00 pm
Schedule: June 17-21, 2024
Cost: Free (Five-day program, teaching materials and lunch included.)

Colorado Academy: REDI Lab Summer Academy

https://www.coloradoacademy.org/redi-lab-at-ca/summer-academy

CA's REDI Lab Summer Academy is an opportunity for young people in the Denver area who want to experience a highly personalized and engaging version of school. It is an opportunity for any high school student to identify an idea that they want to share with the world and develop a project based around it.
Cost:

- The cost of the two-week program is $1,500. For students who request it and qualify, the REDI Lab Summer Academy is offered at a reduced cost or for free.

Apply HERE

Generation Teach **(this is a national program that has a program in Denver and Aurora)**

https://www.generationteach.org/teach

Who You Are

- You are an undergraduate or high-school student who shares our core values.
- You value contributing to a diverse community.
- You want to invest your summer in the success of others.
- You are eager to receive coaching to become the teacher your students deserve

When You Will Teach

- Aurora, Colorado: May 29 - July 15
- Denver, Colorado: June 11 - July 28
- Maryland, Massachusetts, and Rhode Island: June 25 - August 8
- Texas: May 21 - July 2
- Washington D.C.: June 12 - August 1

Application Information:

Deadline

- We offer monthly deadlines on the 15th of each month beginning November 15. You will have a decision within 4 weeks of submission.
- The final Colorado and Texas deadline for summer 2025 is April 15, 2025; the final New England and Mid-Atlantic deadline is May 15, 2025.

Eligibility

- You must be 17 years old or older by April 15, 2025.
- You may be a high-school 11th or 12th grader or a college freshman, sophomore, junior, senior, or recent graduate (within 18 months).
- You must be a U.S. citizen, U.S. national, or lawful permanent resident to apply.

Funding

- We provide funding ranging from $4,600 to $5,000 (depending on length and location) for your AmeriCorps Summer Teaching Fellowship.
- Funding includes a taxed, cash living allowance of $3,035 to $3,435 (depending on length and location) to be deposited in your bank account in five installments and a $1,565.08 AmeriCorps Education Award after the successful completion of the fellowship.
- By completing the fellowship, you are eligible to earn three undergraduate credit hours from the University of Colorado - Denver for a reduced cost.

Submit your Summer 2025 Application here.

Medical Career Collaborative Program (MC^2) (year-round program)

https://www.childrenscolorado.org/about/careers/students/medical-career-collaborative/

The Medical Career Collaborative (MC^2) is a health careers pathway program designed to provide high school students with the opportunity to gain experience and exposure to the world of healthcare and access ongoing support in their pursuit of healthcare professions.

From paid internships and mentorship to certification opportunities and career coaching, MC^2 broadens students' horizons and builds a strong foundation for a future career in healthcare. Many graduates of MC^2 have gone on to work as nurses, doctors, researchers, laboratory scientists, public health professionals, medical interpreters, technicians and more.

What to expect in the program

Accepted students begin their journey with MC2 as high school juniors with programming taking place during students' junior and senior years and beyond. Programming activities include:

- **Field trips, workshops and trainings:** High school juniors and seniors participate in monthly field trips, workshops and trainings to learn about the variety of fields within healthcare, build their skills towards a career in health or medicine and earn mini health-related certifications.
- **Internships:** Juniors complete a 100-120 hour paid internship at Children's Colorado or Denver Health. Students are placed in a department within one of the hospital systems and are paired with hospital staff to gain valuable hands-on experience working in the field.
- **Mentoring:** Each student is matched with a mentor(s) at Children's Colorado or Denver Health. They work alongside their mentor and learn from them throughout the internship component of the program. Mentors represent a wide variety of healthcare professions and may include those working as CNAs, technicians, nurses, paramedics, therapists, physicians and more.
- **Seminars:** Throughout the internship, students participate in weekly seminar sessions facilitated by MC2 staff, where students share about their internship experiences, discuss topics important to healthcare and learn medical terminology.
- **Post-secondary assistance and guidance:** Seniors receive assistance with their goals toward post-secondary education. Students are supported in searching for schools and programs, learning about financial aid, searching for scholarships, gathering letters of recommendation and writing college and scholarship essays.
- **Access to ongoing professional support:** As students graduate from high school and become alumni of the MC2 program, they'll have access to career coaching and assistance, healthcare-related certification programs, and professional development and networking opportunities.

Learn more from our **MC² Program Roadmap (pdf)**.

How to apply

MC² is offered at Denver Health and several Children's Hospital Colorado locations, including Anschutz Medical Campus (Aurora), North Campus (Broomfield), South Campus (Highlands Ranch) and Colorado Springs. Applicants only need to fill out one application to be considered for any of the MC² program site locations.

Applicants must be current high school sophomores at the time of application who attend school in the Denver metro or Colorado Springs areas. If accepted, students begin the program at the start of their junior year.

In an effort to build a workforce that better represents the communities served in healthcare, MC² focuses on recruiting students from groups that are underrepresented in the healthcare industry.

Students are chosen by a committee that reviews all the applications. The selection committee takes the following into consideration when selecting participants for the program:

- Student essays
- School activities
- Community involvement
- Student need
- A recommendation
- GPA

Applications are accepted on an annual basis at the beginning of the year.

The 2025-2026 application window opens on Wednesday, January 8, 2025 at 8 a.m. MST.

All applications must be completed by Wednesday, March 5, 2025 at 5 p.m. MST.

You can apply for the program here.

Research Training Opportunities: Summer Child Health Research Internship at Children's Hospital Colorado/University of Colorado on the Anschutz Medical Campus

https://www.childrenscolorado.org/research-innovation/training-opportunities/

Research Training Opportunities: Child Health Research Internship

About the 2025 Summer Child Health Research Internship

The Department of Pediatrics at the University of Colorado School of Medicine and the Colorado Child Health Research Institute at Children's Hospital Colorado host a summer research program for high school seniors over the age of 18, college students, graduate students and first-year medical students. Students will work in the lab with members of the Department of Pediatrics faculty at Children's Hospital Colorado and the University of Colorado on the **Anschutz Medical Campus**.

The summer program will introduce students to research opportunities related to child health. This includes opportunities for students to participate in a weekly lecture research series as well as present their research at the completion of the internship.
Meet the 2025 **research program faculty**.

Application details:

Click here to visit the 2025 application page. Applications will be accepted between December 2, 2024 and February 1, 2025.

Program details:

Dates: The 2025 summer program will begin Monday, June 2, 2025 and end Friday, August 1, 2025.

Eligibility: Students must be a high school senior over the age of 18, an undergraduate student, graduate student, or a student completing the first year of medical school. Students must be available for the entire nine-week internship. High school students must be Colorado residents. Students who are under the age of 18 before the internship starts on June 2 will not be eligible.
Stipends: Each intern will be provided a stipend of $4,400 to assist with travel and housing costs.
Mentor selection: As part of the application process, applicants will provide their first, second and third choices for potential mentors. The Child Health Research Internship Steering Committee will work with the program faculty to accommodate when possible the mentor requests of the applicants.
Seminar series: Weekly research seminars will be given every Friday morning by members of the 2025 **research program faculty**. Attendance is required by all student interns, and brunch will be provided.
Student research presentations: At the completion of the program, all research interns will provide a written summary of their research experience, contributions and accomplishments. In addition, all students will provide an oral or poster/PowerPoint summary of their research. Students and mentors are encouraged to produce abstracts for submission to local, regional and national meetings. If the students' research is accepted for presentation at a scientific meeting, the Child Health Research Internship will provide funding for travel and registration for the student to travel to one scientific meeting.
Program evaluation

All students and participating program faculty will complete a research program evaluation. For any questions, please email **ResearchInternship@childrenscolorado.org**.

Summer Tech Camps at University of Denver

https://www.idtech.com/locations/colorado-summer-camps/university-of-denver

Coding Camps & STEM Programs in Denver

On Campus at University of Denver
Day Camps - Overnight Camps - Running from June 16 - August 1

Get a taste of collegiate life this summer at DU! Our Denver camps strike the perfect balance between STEM skill development and summer fun, allowing kids and teens to experience a week at a nationally-recognized academic institution. Your child will work alongside new friends and learn from expert tech mentors, while taking breaks in between to enjoy DU's outdoor playing fields for ultimate frisbee, capture the flag, kickball, board games, and more!

Courses available at University of Denver
https://www.idtech.com/locations/colorado-summer-camps/university-of-denver#/reg-flow/avail-charts-lock?lid%5B%5D=71&rgnad=true&ageid%5B%5D=2

- Game Design and Development 101 with Unreal Engine
- VR Game Design with Unity and Meta Quest
- BattleBots® Camp: Robotics Engineering with VEX
- Python Camp: Intro to Coding & AI
- Artificial Intelligence and Machine Learning
- Java Camp: Intro to Computer Science
- 3D Printing: Character Modeling and Sculpting
- Video Production and AI Studio with Adobe
- Animation and Art Studio with Adobe

iD Tech Camps

Ages: 7-17 Beg-Adv
1 Week, Cost From $1,079 USD (Payment plans available); different dates available.
Our flagship weeklong, co-ed experience offers courses for every interest in a well-balanced, fun environment.

Colorado Mesa University:

https://www.coloradomesa.edu/camps/attend.html

Only Athletic Camps listed as of 2/7/2025

Colorado School of Mines: The Summer Multicultural Engineering Training (SUMMET) program

https://www.mines.edu/undergraduate-admissions/summer-multicultural-engineering-training-summet/

A Uniquely Mines Experience

The Summer Multicultural Engineering Training (SUMMET) program is an engineering, science and technology program designed for upcoming seniors from underrepresented populations, including ethnic or racial minorities, women and prospective first-generation college students.

SUMMET combines coursework, hands-on projects, team-building activities and social events. The program provides exposure to the lifestyle, opportunities, and challenges of college and is designed to help build skills and experiences for a smooth transition from high school to college.

This is a one-week residential program, allowing participants to live on campus for the duration of the program, experience life as a college student and participate in STEM-related curriculum instruction.

This program is free to participants, except for a $50 confirmation fee if you are accepted into the program. Transportation to and from the program is not included in the cost and is the responsibility of the participants.

2025 SUMMET SESSIONS

- **Session 1: June 1 – June 6, 2025**
- **Session 2: June 8 – June 13, 2025**
- **Session 3: June 22 – June 27, 2025**

The application deadline for SUMMET 2025 is February 28, 2025.
Apply For SUMMET

Program Contact:

Louisa Duley
Director of the SUMMET Program
Lduley@mines.edu
303.273.3973

Colorado School of Mines: Engineering Design Summer Camp

http://students.csmspace.com/

2025 Camps coming soon: (as of 2/7/2025)

The K-12 Student Outreach Program offers various science, mathematics, and technology-content-based courses for students in kindergarten through 12th grade.

Sign up for the email notification to receive updates for both the Academies and Engineering Design pages!

Colorado College Summer Pre-College Program

https://www.coloradocollege.edu/offices/summersession/pre-college/

Summer Pre-College Program - Postponed Until Summer 2026

Information from 2024:

Colorado College Summer Session invites rising juniors and seniors to join the CC community during the summer. Enroll in one of our dynamic for-credit courses offered on subjects ranging from environmental science and the study of epidemics, to marketing and entrepreneurship, to cross-genre writing. CC's summer session provides students with a rich opportunity to explore challenging academics, get inspired by the wondrous Rocky Mountain Region, and be supported by faculty that are invested in your success.

High School students have the opportunity to immerse themselves in the rhythm of the Block Plan and experience living on Colorado College's campus during our Pre-College Block, which is specially designed for ambitious high school students.

Colorado Association of Conservation Districts

https://www.camprocky.org/camp

2025
Camp Dates: July 6th-11th 2025 | Divide, CO

Full registration cost is $450. Please know that more than 90% of our students last year received some level of scholarship, primarily supported by Colorado's Conservation Districts. You do not need a confirmed scholarship in place before registering--during registration, you will be given an opportunity to indicate you are interested in scholarship support. Find your conservation district here.

Our camp is located approximately 7 miles outside Divide, Colorado. Please plan on early-afternoon arrival on July 6th, and prepare to pick up your camper at 10 a.m. on July 11th.

Registration link unavailable as of 1/28/2025

Metropolitan State University of Denver

https://www.msudenver.edu/summer-camps/

As of 2/4/2025 no information for summer 2025 provided on website, only 2024 information. Historically they post early to mid February.

Regis University

https://www.regis.edu/summer-camps/

Summer 2025

Health Professions Summer Experience

Rueckert-Hartman College for Health Professions invites you to the Health Professions Summer Experience, an exciting and immersive weeklong camp designed for rising high schoolers and college students with an interest in high-demand health care professions. This unique program offers a dynamic blend of hands-on activities, expert-led workshops and engaging sessions tailored to provide you with a comprehensive understanding of the diverse fields within health care. Whether you aspire to study **pharmacy, nursing, physical therapy, health and exercise science, occupational therapy, counseling, family and play therapy or the administration of**

health care, this camp is your gateway to exploring the multifaceted world of health professions. Join us for a transformative week of learning, networking and discovering the endless possibilities that await you in the rewarding realm of health care professions.

Registration Details
Registration is open with a maximum capacity of 50 students. A non-refundable payment is required at the time of registration. The $250 fee includes lunch each day, materials, equipment and recreational activities while on campus. As part of the registration process, participants under the age of 18 must also submit a completed Guardian Consent Form. Participants are responsible for transportation to and from campus. Scholarships are available. Email hpse@regis.edu if you have questions.

WHEN: July 14-18, 2025
M-Th: 8:30-4
F: 8:30-noon

WHERE: Northwest Denver Campus
Interprofessional Health Campus, Thornton
COST: $250 - scholarships available

Registration HERE

University of Northern Colorado:

https://www.unco.edu/nhs/mathematics-science-teaching-institute/program-areas/frontiers-science-institute/

66th Annual

Frontiers of Science Institute

Science in a Changing World

Join us Sunday, June 8 through July 19th, 2025!

Applications open now for FSI 2025!

Calling all high school students!

Spend your summer engaged in authentic experiences to grow your knowledge and interest in STEM. Make friends, have fun, and experience a collegiate learning environment while learning about cutting-edge STEM topics and engaging in mentored research.

What is FSI?

Since 1959, the Frontiers of Science Institute (FSI) at the University of Northern Colorado (UNC) in Greeley has provided opportunities for high school students with STEM aspirations to come together to explore. When you participate in FSI, you will

have authentic, engaging experiences to grow your knowledge and interest in STEM. Additionally, FSI alum have the chance to receive a scholarship to become a Bear and attend the University of Northern Colorado!

How does FSI work?

During the summer, you will engage in an intensive six-week curriculum via:

- field trips,
    - Overnight field trips (with camping) may be scheduled and are mandatory
- seminars by professionals from academia and industry,
- mentored research,
- classroom and laboratory work
- and FSI's new STEM Entrepreneurship Challenge - learn about startup companies and explore how your STEM interests can be applied to a business model by creating a business in small groups and presenting to a panel of judges

Get a taste of the college experience through:

- living in an on-campus dormitory,
- sharing meals in campus dining halls,
- attending college-level classes,
- and the option to earn transferrable college credit

Who can apply to FSI?

Applicants should:

- have a strong desire to challenge themselves and engage in STEM investigations
- have a high level of self-discipline, dependability, and social maturity
- be currently in high school grades 9-11

*Applications from women, differently gendered people, people of color, indigenous people, queer (LGBT+) community members, people with disabilities, and those residing in rural communitiesare strongly encouraged to apply!

What does FSI cost?

All students that participate in FSI are granted partial or full scholarships*, thanks to our generous sponsor support! In the 2024 Cohort, every student in the program received significant scholarship support, with multiple students receiving a full scholarship.

*You will be notified of scholarship awards when you are notified of acceptance. Scholarships are awarded based on several factors, including:

- financial need
- academic accomplishment
- community involvement

The total program admission cost of FSI (without scholarships) is $6,000.

Ready to be part of FSI 2025?

Applying for FSI

University of Colorado Boulder: Aqueta Academic Summer Program

https://www.colorado.edu/aquetza/about-aquetza

Application is not yet open for Summer 2025 as of 2/7/2025

Program Background and Objectives:

The Aquetza: Youth Leadership, Education and Community Empowerment program aims to provide youth with strong ties to Colorado's Chicana/o and Latina/o communities with a unique, trans-disciplinary educational and community leadership experience through a virtual summer program.

Aquetza endeavors to thoughtfully engage students in examining and exploring the intersections and connections across the disciplines of history, literature, health and environmental science, as well as offering students an opportunity to explore how to leverage their community assets and academic skills to become positive, influential, and inclusive civic leaders in their home communities and schools. By creating an experience that is at once socially positive, academically engaging, and grounded in community and culture, Aquetza will serve to encourage its student attendees to begin including higher education, specifically higher education at CU Boulder, in their life plans and academic trajectories, while preparing them to share this spirit of empowerment, agency, and education with people throughout their communities.

OUT OF STATE PROGRAMS

WEST

CALIFORNIA

USC Summer Programs for High School Students

https://summerprograms.usc.edu/

USC Summer Programs
Program Dates: June 15 - July 12, 2025

USC Summer Programs extends a tradition of excellence to outstanding high school students through a diverse offering of four-week summer courses. As a "Summer Trojan," you will balance academic and campus life as you prepare for college — and earn college credit.

USC Summer Programs' courses are taught by USC faculty and experienced professionals of the USC academic community. Our faculty create an engaging academic experience by combining lectures, hands-on workshops and labs, and guest speakers. Each course is designed to be more interactive, engaging and challenging than accelerated high school classes or the broad introductory courses offered by other summer pre-collegiate programs.

ARCHITECTURE

- Exploration of Architecture

BUSINESS

- Analytics: The Power of Data for Businesses
- Bitcoin & AI: Unlocking the Future of Finance and Technology
- Building Sustainable Businesses
- Exploring Entrepreneurship
- Introduction to Business

ENGINEERING & INFORMATION TECHNOLOGY

- Discover Engineering
- Video Game Development

GLOBAL STUDIES

- Global Health: Investigating Outbreaks, Preventing Disease
- International Relations

COMMUNICATION & JOURNALISM

- Media Literacy in the Age of Misinformation
- Sports Journalism: Multi-Platform Storytelling
- Storytelling in the Digital Age

PERFORMING ARTS & MUSIC

- Summer Theatre Conservatory: Acting Intensive
- Summer Theatre Conservatory: Comedy Performance
- Guitar Seminar: Jazz, Rock and Beyond
- Summer Theatre Conservatory: Musical Theatre

PRE-HEALTH & SCIENCE

- Health and Healing: Explorations in the History of Medicine
- Health Innovation: Moving Minds and Bodies
- Psychological Science and Society
- The Brain: Introduction to Neuroscience
- The Science of Food, Nutrition, and the Biological World

PRE-LAW

- Criminal Justice: Law and Punishment
- Legal Reasoning and Argumentation

WRITING & CRITICAL THINKING

- Creative Writing Workshop
- Ethics in the 21st Century: Business, Politics, & Technology
- The Philosophy of Economic Markets, Money, and Property

Application Guide & Best Practices

Apply HERE

UCLA High School Summer Programs

https://www.summer.ucla.edu/ushsstudent

UCLA Summer Sessions
Registration Opens February 15, 2025

High school students have many options to get ahead and earn college credit at UCLA.

Review each area for when registration opens, and deadlines.

Summer Courses
Choose from 100+ in person courses in over 30 subject areas and study alongside UCLA students. Get acclimated to the fast pace of the college quarter system.

Summer Online
Take UCLA on the go and earn UCLA credit anywhere. Summer Online is specifically designed and optimized for online course instruction and learning.

Summer Intensives
Immerse yourself in an accelerated learning experience and earn the same amount of UCLA credit in just three weeks.

Summer College Immersion Program
Take 1-2 UCLA courses alongside UCLA undergraduates and receive exclusive access to co-curricular enhancements that foster academic growth and college readiness. You will leave UCLA equipped with the skills necessary to succeed at world-class universities. SCIP into your future at UCLA.

Precollege Summer Institutes
Receive a comprehensive and immersive study of your chosen subject in one to three weeks. Through co-curricular components including hands-on projects and performances, field visits, and guest lectures, you will have an educational experience that goes beyond classroom instruction.

High School Program Guide

Review each program for further details.

There are costs associated with these programs.

BlueStamp Engineering

1. In-Person

https://bluestampengineering.com/in-person-program/

BLUESTAMP IN SAN JOSE, CA
Our in-person summer program offers students of all experience levels to learn and improve their engineering capabilities.

Every student builds their own self-selected project and creates an engineering portfolio to share their work. Students attend workshops, listen to guest speakers, and learn to use specialized engineering tools. Our student to staff ratio is ~4:1.

HIGH SCHOOLERS AT BLUESTAMP

- Location: 3800 Blackford Ave. San Jose, CA 95117
- Tuition: $4900. Includes all parts, tools, equipment, and instruction.
- Student Age Range: Incoming 9th-12th grade students. Students who are younger than high school age should apply for our middle school program (see below).
- Program Dates: Weekdays, June 16 - July 25, 2025
- Program Times: Choose morning or afternoon session:
  Morning session: 8:30am - 12:30pm
  Afternoon session: 1:00pm - 5:00pm
- Custom Schedules Available: Students who cannot attend the entire 6 week half-day program may opt to apply for a custom schedule (e.g. 3 weeks of full-days).

2. Remote Program

https://bluestampengineering.com/remote-program/

Our **live, synchronous** remote program enables students worldwide to develop their engineering skills. Students choose a project from our remote project book, and BlueStamp mails all necessary parts and tools directly to them.

Like our in-person program, each student builds their chosen project, creates an engineering portfolio, and presents at Demo Night. We maintain the same 4:1 student-to-staff ratio, ensuring personalized attention to each student.

BLUESTAMP FROM ANYWHERE

- Location: Join from anywhere live, online.
- Tuition: $2200. Includes all parts, tools, equipment, and live, remote instruction. Shipping internationally may incur additional shipping costs for parts and tools.
- Student Age Range: All incoming 8th - 12th graders are welcome to apply.
- Program Dates: Weekdays, choose session 1, 2 or 3:
  Session 1: June 16 - July 3, 2025
  Session 2: July 7 - July 25, 2025
  Session 3: July 28 - August 15, 2025
- Program Times: Choose morning or afternoon session:
  Morning session: 9:30am - 12:00pm ET
  Innovation lab: 12:30pm - 2:00pm ET
  Afternoon session: 2:30pm - 5:00pm ET

  Innovation Lab is optional but highly encouraged, offering extra live instruction, project support, and guest speakers. Both morning and afternoon students are invited to participate.

  Please note that all times are **EASTERN STANDARD TIME.**

BlueStamp operates on a rolling admissions basis until seats are filled. Because we are committed to our low student-to-staff ratio, a limited number of seats are available each summer.

Applicants are interviewed prior to admission, and applicants are reviewed and interviewed in the order their applications are received.

Apply HERE

Santa Clara University School of Engineering – Summer Engineering Seminar

https://www.scu.edu/engineering/beyond-the-classroom/outreach/summer-engineering-seminar-ses/

Summer Engineering Seminar (SES)

2025 Applications are now LIVE!!!

A Special Summer Program for High School Students: In 2025, the School of Engineering at Santa Clara University will host its 36th Annual Summer Engineering Seminar (SES) program.

This outstanding, five-day immersion summer experience is for current high school sophomores and juniors, who are interested in exploring the field of engineering. The program offers specially designed introductory workshops taught by our engineering faculty that are presented as a mix of lecture and interactive work, spanning several fields of engineering. Participants will also get a taste of university life and the academic expectations of college. Along with living in the dorms during the program, students will interact with our faculty, students, and other members of the SCU community throughout the week.

The 2025 SES program will be offered three times over the course of the summer. With the first two session being our introduction program for new participants. Priority goes to Sophomores, with limited space available to Juniors. Our third session will be our advanced year-two program. Open only to returning program participants from the summer of 2024. Thus, allowing us to offer SES as a two-year program for participants from the introductory program who want to come back during the summer of 2025 to dive deeper into the majors they are interested in.

During the week participants attend introductory level workshops spanning several disciplines of engineering that are facilitated by our engineering faculty. Topics will include: Bioengineering; Civil, Sustainable and Environmental Engineering; Computer Science and Engineering; Electrical and Computer Engineering; and Mechanical Engineering. Participants attend all core workshops for a broad exposure to the various disciplines and careers within the field of engineering. Workshops will be held by the School of Engineering, the focal point for engineering education at Santa Clara University.

Participants can apply to attend one of the following two introductory session options:

SES Introduction (Year-One):

- Session One: July 13-17
- Session Two: July 20-24

SES Advanced (Year-Two) Returning Participants: Past participants will receive a separate invitation

- Session Three: July 27- 31

Cost: All on-site fees for the SES Program are paid by the School of Engineering along with gifts from various corporate sponsors and foundations. Resulting in no costs for participants who are accepted into the program.

Application

To be considered for this program, applicants must submit a complete application consisting of the following:

1. The online application must be completed by **9:00 p.m. PT on Monday, March 31, 2025**. The application is available **here**.
2. An essay (500 words) as part of the online application addressing the following questions: What makes you an ideal candidate for the SES program? How do you think you could benefit from the program? Questions to consider in your response may include:
   -What are you passionate about?
   -What drives your curiosity for engineering?
   -What kind of impact do you hope to have on society?

Stanford University – Office of STEM Outreach

https://oso.stanford.edu/programs/high-school-students

Stanford: Education & STEM Outreach

Programs for High School Students - 2025

Below is a list of programs to explore. Each program is different, so follow the links and contact the program directly if you have questions. For example, many have financial aid or fee-waiver program available. Each program has different application deadlines and some offer sessions outside of the summer months. Remember to check back regularly, since program websites are updated periodically. Summer programs may not be updated until winter or spring 2025.

Summer camp note: Some summer camps are located on Stanford University campus but run by other organizations. See the Residential & Dining Enterprises (R&DE) site listing those additional summer camps, which are updated seasonally, here.

NOTE: Click on each program to get specific information on cost, deadlines, application, and scholarships.

Advanced Science Exploratory Program

Advanced Science Exploratory Program is a non-profit 501(c)(3) offering educational seminars aimed to ignite excitement about science, scientific research, and scientific career paths. Each series offered aims to equip students with the knowledge to incite their curiosity, and make informed decisions as they take their next steps in their education towards their career pursuits. A number of different types of seminars are currently open for enrollment, including 1) Mentorship Series such as "think like a scientist" (equip students with the knowledge, insight and skills required for success in their career pursuits); 2) Foundations Series such as "how scientists study the brain" (inspire interest, and both inform and expand student's scope of career opportunities through exposure to various fields) 3) Focused Series such as "understanding emotion and its relationship with the brain" (use specific topics as a vehicle to exemplify the range of methods and approaches one can use to study within a field).

See available seminars here! https://www.asciencepro.org/upcomingseminars

A significant part of our mission is to actively diversify the field of scientific research by extending opportunities to students whom wouldn't otherwise have the resources required to pursue transformative scientific opportunities. Please contact us if you are interested in an income-based scholarships for one of our seminars.

AI in Medicine Summer Programs (by the Stanford Center for Artificial Intelligence in Medicine & Imaging)

Applications for Stanford AIMI's Summer Programs for high school students are now live! Explore healthcare's future through our AI in Medicine Summer Research Internship and Bootcamp! During the two-week virtual programs, we aim to spark interest and empower the next generation of AI leaders in medicine. Our hope is to inspire students to develop innovative AI solutions to advance human health for all.

Summer Research Internship:
Dive into AI's impact on healthcare through expert-led sessions, a hands-on project, & mentorship from Stanford researchers. Open to ambitious high school students entering 9th-12th grade in Fall 2024 who want to apply their technical skills to real-world clinical problems. Learn more and apply here: https://aimi.stanford.edu/education/summer-research-internship

Summer Bootcamp Program: Designed for high school learners of all technical levels, this free virtual bootcamp offers a curated curriculum that covers the fundamentals of machine learning in healthcare settings. Discover the intersections through this series of virtual lectures led by Stanford's leading health AIexperts. Learn more and apply here: https://aimi.stanford.edu/education/aimi-summer-bootcamp

Key Dates: Applications Due: March 31, 2024, 11:59pm PT Program dates (internship & bootcamp): June 17-28, 2024 (Mon-Fri,9am-12pm PT)

Cardiothoracic Surgical Skills Summer Internship

This two-week course is designed to educate high school students considering careers in science and medicine in cardiothoracic surgical anatomy and physiology. It is an

intensive course that will provide knowledge of and exposure to basic and advanced cardiothoracic surgery and technical skills (e.g., knot tying, tissue handling, suturing, and coronary artery bypass and valve replacement surgery). Lectures and skills sessions are conducted by Stanford University faculty and surgical residents. Currently, we are planning two virtual on-line sessions during Summer 2024. There is a program fee, and financial assistance is available for applicants in need. Check the program page for detailed information: https://med.stanford.edu/cssec/summer-internship.html. Please check the website for the application due date.

Clinical Anatomy Summer Program (CASP)

The Clinical Anatomy Summer Program (CASP) offers high school students the unique opportunity to explore anatomy and health careers in a week-long, non-residential, in person program. Summer program students engage with virtual modalities of learning anatomy, hands-on suturing and dissection workshops, and the opportunity to interact with human cadaveric specimen! In 2024, CASP is offering both an in-person and virtual program. For more information, please visit: https://med.stanford.edu/anatomy/education/virtual-casp.html.

Clinical Neuroscience Immersion Experience (CNI-X)

The Clinical Neuroscience Immersion Experience (CNI-X) is an intensive summer program that generally follows a student's sophomore, junior, or senior year of high school. During a two-week session either online or on the campus of Stanford University, participants are exposed to the breadth of research found in the Stanford Department of Psychiatry and Behavioral Sciences. Three sessions will be offered in 2024: Session 1 (June 17- June 28) will be held virtually via Zoom. Sessions 2 (July 8-July 19) and 3 (July 22-August 2) will be held in-person at the Stanford campus. There is a program fee and financial assistance is available for applicants in need. Learn more and apply on the website: https://med.stanford.edu/psychiatry/special-initiatives/CNIX.html. Applicatio ns will be accepted until March 1, 2024.

Educational Studies Program/Splash!

ESP/Splash! offers a Saturday or Sunday on campus full of academic and non-academic classes taught by Stanford students. ESP invites students to attend classes that could vary from completely "non-academic" stuff like cookie baking and origami, to complicated and challenging classes on machine theory or quantum mechanics.

Farm to Table Summer Camp

Our Farm to Table Camp, offered for the 12th summer in collaboration with Santa Clara Unified School District, provides students in kindergarten through 8th grade with engaging and empowering learning experiences on our organic 11-acre suburban farm located in Santa Clara.

Future Advancers of Science and Technology

FAST is a program in which Stanford University graduate students mentor Future Advancers of Science and Technology (FAST) toward achieving their goals of answering open questions in science and engineering clever solutions to problems in their society. High school sophomores, juniors, and seniors of Andrew P Hill High School and James Lick High School meet with Stanford PhD students during afternoons of two Saturdays

each month. The goal is to brainstorm projects and carry out experiments / build prototypes between September and February. In late January through March, high school students present their work at local science fairs, state science fairs, and at a Symposium at Stanford University. FAST also offers a series of online workshops to help high school students navigate the college process.

Genomics Research Internship Program at Stanford (GRIPS)

The Genomics Research Internship Program at Stanford (GRIPS) brings summer internship opportunities in computational genetics and genomics to Bay Area high school students. GRIPS offers highly talented high school students a unique research experience, professional development, and community building opportunities. GRIPS is a twenty hour, eight week long research intensive experience for high school students. Program participants will be placed in a research laboratory for the summer and conduct genomics research under the supervision of a lab mentor. Application deadline is February.

Health Career Collaborative (HCC)

The Health Career Collaborative is a student-driven health career exposure & mentorship program that connects 10th, 11th, and 12th grade students from East Palo Alto Academy to undergrads, medical and graduate students, and faculty at Stanford. The HCC's goal is to expose students from disadvantaged and/or underrepresented backgrounds to the exciting field of healthcare in aims of making the future workforce of medicine more representative, and its delivery more equitable. If you are interested, please reach out to the contacts listed on the HCC webpage.

High School Chemistry Outreach

Beginning in 2009, the Stanford Chemistry department teamed up with American High School in Fremont to bring in novel hands-on guided inquiry lab experiences. In these labs, students work together in small groups to carry out an exciting activity that would otherwise not be possible with the minimal equipment and supplies available to most high schools. The lab topics fit within the California Curriculum Standards, presented with an emphasis on how these concepts apply in the real world.

Inspiring Future Scientists through Shadowing (IFSS)

IFSS is a two-week program hosted each summer by the chemistry department to give rising juniors and seniors in high school an opportunity to experience cutting edge chemical research while shadowing a graduate student mentor as they work in the laboratory.

Introduction to Logic High School Summer Camp

The Introduction to Logic High School Summer Session is a two-week, non-residential program offering an introduction to logic from a computational perspective. With applications in mathematics, science, engineering, business, law, a Stanford Computer Science professor and logician and an award-winning high school instructor jointly teach this workshop. The 2024 session will take place on the Stanford campus. Scholarships are available. For more information, see http://intrologic.stanford.edu/studentcamps/logicisfundamental.html.

MRS Outreach Ambassadors

MRS Outreach Ambassadors are graduate students in the Stanford Chapter of the Materials Research Society who offer in-class demonstrations and lectures on the

materials of our world, materials of the future, and careers in science and engineering. Teachers may request a school visit at no charge.

Pediatrics Internship Program at Stanford (PIPS)

The Pediatrics Internship Program at Stanford (PIPS) is a 6-week program in which high school students from diverse backgrounds are invited to learn about science, medicine, and research with Stanford faculty, postdoctoral fellows, students and researchers on a medically-oriented project. The goals of the program include increasing interest in biological sciences and medicine in Bay Area high school students, helping students to understand how scientific research is performed, and increasing diversity of students and researchers in the sciences. Students will spend 30 hours per week in the program (Monday through Friday, approximately 6 hours/day) .There is no cost associated with participation in this program – priority will go towards students underrepresented in medicine (racial/ethnic minority, first-generation college, low-income, etc)

Pre-College Opportunities within Energy Research (POWER)

POWER is a Stanford Energy Club program that offers hands-on workshops to introduce local high school students from historically marginalized communities to topics in sustainability and energy research. We are motivated by the goal of diversifying the pipeline of future energy leaders. To find out more about POWER's past workshops, please visit https://www.stanfordenergyclub.com/past-workshops

Pre-Collegiate University-Level Online Math & Physics Courses

These online courses are designed for motivated and academically advanced high school students to explore their intellectual passions, develop analytic reasoning and creative thinking, and study directly with expert instructors. Courses are offered for credit throughout the summer and academic year, and give students the opportunity to take a broad offering of math and physics courses not typically offered in secondary schools.

Science Accelerating Girls' Engagement (SAGE)

SAGE (Science Accelerating Girls' Engagement) is a one-week summer camp for public high school students (age 14-17) hosted by scientists and engineers to share what life is like in STEM (Science, Technology, Engineering, and Mathematics) professions.
This program aims to foster innovation, grow the STEM community, and engage intelligent, creative, and passionate young women in the everyday life of scientists and engineers. Throughout the week, students will participate in job shadowing, hands-on projects, professional development, networking activities and more!

Science, Technology, and Reconstructive Surgery (STaRS) Summer Internship Program

Each year, the Division of Plastic and Reconstructive Surgery hosts 15-30 talented high school and undergraduate students in our research laboratories. The program is free to participants. STARS interns spend 7 weeks mastering basic lab techniques, participating in research projects, and presenting their work all under the mentorship of experienced researchers. Typically the internship begins in late June and extends to the first week in August, exact dates to be determined.

Seeds of Change

Seeds of Change partners Stanford undergraduates in technology disciplines with high school students interested in advancing the participation of women and girls in STEM, and provides an integrated curriculum of mentoring, training and skills development.

The program's goal is to establish and retain young women in technology fields, and create future women STEM leaders.

SHTEM Summer Internship Program

The Stanford Compression Forum hosts its annual SHTEM internship program every summer. This internship is intended to provide early exposure to research transcending traditional disciplinary boundaries. Students will be grouped to multifaceted projects that will benefit from their existing interests and strengths, while exposing them to new areas. Projects will be mentored by students, faculty and staff of the Stanford Compression Forum and its affiliated organizations. Themes will span and combine the science of information and communication, engineering, the arts, linguistics, psychology, biology, neuroscience, computer science, technology, philosophy, and design, among other areas. There is no fee to participate, but students must commit to attending the duration of the program. The 2024 program will be virtual. Applications are being accepted until February 23rd, 2024.

SIMR - Stanford Institutes of Medicine Summer Research Program

SIMR is for high school juniors and seniors interested in hands-on research in immunology, stem cell, cancer, neuroscience, bioinformatics or cardiovascular medicine. This eight week program enables students to take part in research, attend introductory lectures and present their work at a poster session open to the Stanford community. There is no cost to participate; interns earn at least a $500 stipend.

SMASH Academy on Stanford Campus

SMASH is a state of the art Science, Technology, Engineering and Math (STEM) summer enrichment program for high school students at Stanford, and other colleges. High potential Black, Latino/a, Native American, Southeast Asian or Pacific Islander high school students participate in this three-year 5-week summer math and science enrichment program. There is no cost to participate.

SLAC Summer Internship Program

Participants in this program include high school (ages 18 and older), undergraduate and graduate level college students. Our internship programs are designed to provide students with stimulating, real-world work experiences. Interns can work up to twelve weeks from May until September, depending upon department needs and student school schedules. All students must be authorized to work in the U.S. and must pass a basic background check.

Stanford AI4ALL

Stanford AI4ALL aims to increase diversity in the field of Artificial Intelligence. During this three-week online program, students are immersed in AI through a combination of lectures, hands-on research projects, and mentoring activities. Participants engage with professionals in the field to learn about cutting-edge ideas, such as how AI can be applied in medicine, disaster response, and combatting poverty. The program also aims to build a close-knit community and encourage interest among underrepresented populations in the field.

Stanford Clinical Science, Technology and Medicine Sumer Internships

This program is designed for high school (rising juniors and seniors) and pre-medical undergraduate students interested in pursuing careers in medicine, STEM, medical research and development, or health care design, with a specific focus on

Anesthesiology, Perioperative and Pain Medicine. Three sessions will be offered in 2024: Session 1 June 24 - July 5, 2024, Session 2 (Clinical Skills) July 15-July 19, 2024, Session 3 (Virtual) July 29-August 9, 2023. Tuition varies depending on session.

Stanford Clinical Summer Internship

The Stanford Clinical Summer Internship brings together curious learners from differing backgrounds to actively engage in the exploration of the art and science behind world-class medicine. Discover, contribute, and make meaningful connections and friendships while working alongside dedicated and dynamic Stanford medical students, residents, and faculty, who are all eager to share the joy they have found in medicine.

Stanford High School Summer College

High School Summer College allows high-achieving students between 16-19 years to access undergraduate courses at Stanford University. This eight- or nine-week experience provides academic, social, and intellectual opportunities not found in a high school classroom. Rolling admission is open until May 1st for Summer 2024.

Stanford EXPLORE: A Lecture Series on Biomedical Research

The Stanford Explore Lecture Series covers the basic fundamentals and current research areas in Immunology, Neuroscience, Regenerative and Stem Cell Medicine, Cancer Biology, Bioengineering and Bioinformatics. Students must be in 9th-12th grade at the time of registration. This will be a 3-week virtual program in July.

Stanford Math Circle

Math circles are weekly online gatherings of high school, middle school, and elementary school students working on problems involving complex and advanced mathematical topics, guided by mathematicians and educators. Winter Quarter 2025: Jan. 13 to March 20, Stanford Pre-Collegiate Studies will host Math Circle online for the winter quarter, grades 1-12. Course fee is $495, one day a week, one to two hours, depending on grade level. Limited availability. Registration ends Dec. 9

Stanford Medical Youth Science Program (SMYSP)

The Stanford Medical Youth Science Program offers five weeks of intensive science and health training each summer. Participants are mentored throughout the five-week program by medical professionals, faculty, and college students with a passion for science. There is no cost to participate. The program is open to low-income, underrepresented high school juniors who live in Northern and Central California.

Stanford Medicine Art & Anatomy Summer Program

The Art & Anatomy Program is a 2-week summer immersion in visual storytelling. We offer both an in-person, and a virtual program. The program will include a speaker series from leading anatomists, physicians, and creatives whose work blend art and medicine. This will be followed by a week of drawing mentorship to develop a resolved final illustration. Students will present their final projects to a panel of artists, museum curators, and physicians. The program will take place June 17-28, 2024. No prior drawing or anatomy experience is required. Apply by March 18, 2024.

Stanford Medicine Clinical Summer Internship (MEDCSI)

MEDCSI is a rigorous 2 week program in Medicine that is open to highly motivated high school rising juniors and seniors, and premed students. Workshops and sessions are taught by Stanford faculty and include hands-on experiences such as performing bedside ultrasounds, dissections, suturing, splinting and visits to the Stanford

emergency life flight station and free clinics. There are two identical sessions each summer, and both virtual and in-person sessions are available. There is a fee to participate. Applications are due February 25, 2024.

Stanford Neurodiversity Project - Research, Education, and Advocacy Camp for High Schoolers (SNP-REACH)

SNP-REACH is a two-week summer camp for high school students. Students will join via Zoom or in person on Stanford's campus from around the US and around the world. Leading lecturers, researchers, and clinicians from Stanford and around the country will present on different aspects of neurodiversity and allyship. Small group projects allow students to connect in a deeper, more active way. Both remote and in-person formats allow students to make new friends, expand their worldview and continue the conversation beyond the camp. At this camp, students have a variety of opportunities, which include learning more about neurodiversity advocacy, the strengths-based model, universal design principles, and more. Students can also hear from neurodivergent student advocates and collaborate on neurodiversity advocacy projects that they can continue beyond the program in their own high schools. Needs-based scholarships are available by application. The financial aid application can be requested after the camper is admitted.

Stanford Online

Stanford Online offers free online courses taught by Stanford faculty to lifelong learners worldwide, and a variety of professional education opportunities in conjunction with many of the University's schools and departments.

Stanford Pre-Collegiate Studies (SPCS)

Stanford Pre-Collegiate Studies offers online and residential academic enrichment opportunities for academically motivated youth, both in the summer and during the academic year. Winter Quarter 2025: Jan. 13 to March 20, Stanford Pre-Collegiate Studies will host Math Circle online for the winter quarter, grades 1-12. Open to elementary, middle and high school students. Course fee is $495, one day a week, one to two hours, depending on grade level. Limited availability. Registration ends Dec. 9

Stanford Pre-Collegiate University-Level Online Math & Physics

Stanford Pre-Collegiate University-Level Online Math & Physics offers 13 courses throughout the year, giving students an advanced offering of math and physics courses not typically available in secondary schools.

These online courses bring motivated and academically talented high school students together to allow them to explore their intellectual passions, develop analytic reasoning and creative thinking, and study directly with expert instructors. Courses in the University-Level Online Math & Physics programs are largely self-paced. Expert instructors are available for optional office hours to meet with students online and offer assistance as they progress through the course material. All courses carry Stanford University Continuing Studies credit, and students earn a Stanford Continuing Studies transcript.

Stanford Program for Inspiring the Next Generation of Women in Physics (SPINWIP)

The Stanford Program for Inspiring the Next Generation of Women in Physics (SPINWIP) is a virtual summer outreach program hosted by the Stanford Physics Department, designed to get high-school girls excited about physics. This 3-week

program is completely free to participants, and is held through video chat.

First-generation students and students from underrepresented backgrounds in physics are particularly encouraged to apply. Absolutely no prior knowledge of physics or coding is required.

Students will learn about cutting edge research in physics in fields such as quantum physics, quantum computing, astrophysics, and cosmology. They will learn how to code in Python, and then apply their coding skills to physics-based projects. Students will attend lectures by Stanford professors and researchers and work in small groups led by Stanford undergraduates, as well as attend college planning and career development workshops. Students will have the opportunity to form mentorship relationships with Stanford students and professors. Applications will be accepted until May 1, 2024

Stanford seeME

Stanford seeME is an outreach event to introduce young students to engineering! The Mechanical Engineering (ME) department at Stanford opens its doors to high school and middle school students in Spring 2022, where they will learn hands-on engineering from current Stanford students. By connecting middle- and high-school students with little or no background in Engineering, to diverse graduate students who are passionate and eager to teach it, we hope to create meaningful experiences that encourage every participant to explore a potential academic or professional career in Engineering. seeME lets students explore hands-on classes such as: wind energy, driverless cars, predicting the spread of disease, industrial engineering, fire, and data science.

Stanford School of Medicine Art & Anatomy Summer Program

This is a 2-week virtual program for rising 9th to 12th grade students that will combine lectures and drawing mentorship, led by Stanford Lecturer Lauren Toomer, who is jointly appointed in the Clinical Anatomy and Art & Art History Departments. For more information, visit our website. Applications for this program are open until until March 18th, 2024.

Stanford Science Penpals

Stanford Science Penpals connects 6th-12th graders across the U.S. to Stanford scientists. The goal is to expose kids to diverse scientific careers, answer science questions, and share a love of science! Penpal exchanges start in September and end in June. We encourage students to get in touch with us.

Stanford Summer Humanities Institute

Stanford Summer Humanities Institute is a summer enrichment program where rising high school juniors and seniors explore the big questions at the heart of the humanities in seminars led by distinguished Stanford professors.

Stanford University Mathematics Camp (SUMaC)

SUMaC leads participants on a journey in advanced mathematics through lectures, guided research, and group problem solving. In an environment centered on mathematics, participants explore current lines of mathematical research, the historical development of important areas of mathematics, and applications across scientific disciplines. Online and residential options are available.

Stanford ValleyCare Clinical Academy Program

The Stanford ValleyCare Clinical Academy Program is a two-week program in Pleasanton, CA for high school juniors and seniors with a strong interest in medicine as a career. Students will participate in an enriched curriculum consisting of hands-on activities, interactive lectures, and simulation experiences. Students must be 16 years old to participate. There is a $50 application fee and a $4,000 fee to participate. Applications close March 8, 2024.

Stanford Young Investigators

At the Stanford Doerr School of Sustainability, high school scholars spend the summer working in research groups and laboratories on the main Stanford campus. Since 2004, over 300 high school students have worked in our research labs and learned about the process of science first hand. We offer several different options, with different areas of focus and time commitments. Students are supervised directly by graduate scholars, post docs and lab managers. Once a week we have talks, lab tours, and field trips as a group.

Cal Poly San Luis Obispo: Engineering Possibilities in College

https://epic.calpoly.edu/

Welcome to Engineering Possibilities in College (EPIC)

AN EPIC ADVENTURE AWAITS!
Do you like building projects or figuring out how things work? If so, then you might be an engineer.
EPIC- Engineering Possibilities in College - is a one-week summer camp at Cal Poly San Luis Obispo that introduces campers to the varied fields of engineering through hands-on labs taught by university professors and industry professionals. EPIC campers see "Learn by Doing" in action when Cal Poly students show them the satellites, prosthetic hands, race cars, concrete canoes, and other products they've developed. In addition, EPIC campers get to design, build, and test their own projects!

EPIC provides an opportunity for campers to experience life on a university campus and meet others who share their interests.

If you are currently in grades 6-11, you are eligible to apply for the EPIC 2025 summer camp.

SUMMER 2025

Apply January 6-March 31, 2025

2025 Program Dates

Grades based on current enrollment

Session 1	June 29-July 3	6th-8th Grade	Registration fee $1,900
Session 2	July 6-11	9th-11th Grade	Registration fee $2,100
Session 3	July 13-18	9th-11th Grade	Registration fee $2,100
Session 4	July 20-25	9th-11th Grade	Registration fee $2,100

Engineering topics/courses
Topics will vary depending on the week. To view the course descriptions please go to the EPIC 2025 Tab.

The fee covers the following:

- Housing: Sunday evening - Friday afternoon (Except Session 1 due to the 4th of July Holiday on Friday)
- All meals and snacks
- Engineering Classes
- Activities
- Engineering week group project
- Speaker Series: Cal Poly Admissions, Industry Speaker, College Life, Engineering Majors, Engineering Student Panels
- Social Events: Pool, Movie Night, Bowling, Hikes
- Tours: Cal Poly, College of Engineering, and Housing
- EPIC camp t-shirt, cinch bag, lanyard

Dates and Deadlines

January 6, 2025 - Online application opens HERE
February 7, 2025 - Early admission application closes
March 31, 2025 - Early admission decision notifications go out. Online application closes.
April 11, 2025 - Early admission offer acceptance or decline
April 18, 2025 - Regular admission decision notifications go out
May 2, 2025 - Regular admission offer acceptance or decline
May 9, 2025 – Waitlist status notifications go out
May 16, 2025 All required material must be electronically signed and submitted

SOUTH DAKOTA

South Dakota School of Mines and Technology: High School Engineering and Science Career Camps

http://www.sdsmt.edu/SummerCamps/

2025 STEM Summer Camps at South Dakota Mines

2025 Summer Camps are now open! Spots are limited so be sure to register ASAP.

Ready for an unforgettable summer? Join us at South Dakota Mines for our STEM summer camps and dive into the exciting world of science and engineering!

These aren't your typical camps. You'll get to roll up your sleeves with hands-on experiments, go on epic field trips, and learn from awesome professors who know what it's like to work in

STEM careers. Plus, you'll be on a real college campus, getting a taste of what it's like to learn and explore at South Dakota Mines.

If you're coming from out of town, why not make it a family adventure? The Black Hills is the perfect setting for a summer getaway, with endless opportunities to explore. Need help planning? **Black Hills & Badlands** and **Visit Rapid City** are fantastic resources.

This summer could be your chance to find your spark and start dreaming big. Are you ready to take the first step? Let's do this!

NOTE: Click on each program to get specific information on cost, deadlines, application, and scholarships.

Day Camps

Adventures in Aviation

Aerospace Engineering Camp
June 16-19, 2025
Grades: 10th-12th

Musical Electronics

Electrical Engineering Camp
June 2-5, 2025
Grades: 8th-12th

Mining and Explosives

Mining Engineering Camp
June 9-12, 2025
Grades: 10th-12th

Coding with Snakes & Sensors

Computer Science Camp
Computer Science Camp June 9-12, 2025
Grades: 8th-12th

Camp BioMed

Biomedical Engineering Camp
June 16-19, 2025
Grades: 8th-12th

It's Rocket Science

Physics Camp
June 9-12, 2025
July 21-24, 2025
Grades 9th-12th

The Science of Pottery and Glass

Art and Engineering Camp
June 9- 2, 2025
Grades 9th-12th

Materials, Metallurgy & Forensics

Metallurgy Engineering Camp
June 23-27, 2025
Grades 9th-12th

The Chemical Engineering Institute

Chemical Engineering Camp July 21-24, 2025
Grades 8th-12th

Robotics for Beginners

Computer Science Camp
June 2-5, 2025
Grades 10th-12th

STEM Exploration

Science & Engineering Camp
June 23- 26, 2025
Grades 8th-12th

Science of Swords

Metallurgical Engineering Camp
FULL
June 16-20, 2025
Grades: 9th-12th

Parks and Tech

Humanities & Social Sciences Camp
June 16-19, 2025
Grades 9th-12th

Pre-Med @ Mines

Pre-Professional Health Camp
June 2-5, 2025
Grades 9th-12th

3D and Beyond

3d Printing Camp
July 7-11, 2025
Grades 8th-12th

Geology Rocks

Geology & Geological Engineering Day Camp
June 23- 26, 2025
Grades 8th-12th

Amped Up: Musical Electronics

Computer Science Day Camp
June 9- 12 2025
Grades 8th-12th

Green Chemistry

Chemistry Day Camp
July 21-24, 2025
Grades 9th-12th
Virtual Camps

Virtual Mining & Explosives

Mining Engineering Camp
July 15-17. 2025
Grades: OPEN
FREE

WYOMING

University of Wyoming: Engineering Summer Program

https://www.uwyo.edu/ceps/resources/outreach/programs/esp.html

Engineering Summer Program 2025

College of Engineering and Physical Sciences

We Want to Inspire Future Engineers!

We offer high school juniors an opportunity to participate in a summer program of hands-on experiences in various engineering fields. You might have a chance to build a digital circuit, study solutions to an environmental issue, program a robotic device or design timber trusses.

ESP Summer 2025

Date: June 8-14, 2025 (Sunday evening through Saturday morning)
Cost: $350

***STUDENTS - Before you begin your application, make sure you have the following documents prepared or in the process of being prepared.**

1. Interest essay: (one page) Describe your interest in engineering and explain why you want to attend ESP.
2. High School transcript (if you have trouble getting the transcript by the deadline, please contact us).
We will begin accepting Applications 01/01/2025
ESP ONLINE Application for Summer 2025**: https://forms.office.com/r/jVeRrM8Sch**
Application Deadline: **April 18, 2025**

Why participate in ESP?
You'll work one-on-one with faculty members and advanced students. This one-week program will expand your horizons, develop creative thinking and problem-solving skills and challenge your imagination. Students who are interested in any career are encouraged to apply. The field of engineering can prepare you for advanced degrees and careers in medicine, law, business, as well as the various fields in engineering. Hosted on the UW campus, you'll be in some of the best labs in the West. **Only 36 students will be selected to participate in the program.**

Costs & Sponsors
For Summer 2025, the cost per student is $350.

Other program costs are provided by the College of Engineering and Physical Sciences and our generous sponsors.

MIDWEST

MISSOURI

Missouri University of Science and Technology
https://summer.mst.edu/

2025 Summer Camps at S&T

Our Campus. Your Summer Adventure. Join scientific and creative innovators for an exciting summer on the Missouri S&T campus filled with hands on projects, scientific demonstrations and more!

Registration: Opens on Monday, December 16th, 2024

NOTE: Click on each camp link for more information on registration, camp dates, and cost.

Engineering with Biology
Campers will explore how living organisms can be designed and modified to produce valuable chemicals that might be used to solve some of the grand challenges of our lifetime.

Mechanical Crash Course Camp
Work to design an autonomous vehicle in this engineering crash course!

Nuclear Engineering Camp
Explore the fascinating world of nuclear power and opportunities of nuclear engineering.
Date

Explosives Camp - Session 1
The Summer Explosives Camp - the first and best camp of its kind - provides American high schoolers with a unique opportunity for a hands-on learning experience with explosives.

Mining the Mind
Campers will delve deeper into how the brain works by exploring innovative research as well as be able to take a peek into different career paths in psychology.

Jackling Introduction to Engineering - Session 1

Learn what it means to be an engineer through hands on projects and demonstrations.
Date

Movie Makers (Evening Camp)
Ready, Set, Action! Learn what it takes to work with a team and create a story from concept to the big screen!

Outdoor World: Urban and Rural
Science, biology, environmental engineering and camping outdoors!

Jackling Introduction to Engineering - Session 2
Learn what it means to be an engineer through hands on projects and demonstrations.

Explosives Camp - Session 2
The Summer Explosives Camp - the first and best camp of its kind - provides American high schoolers with a unique opportunity for a hands-on learning experience with explosives.

Superconductor Quantum World
Superconductors can make hoverboards, flying cars, and quantum computers possible. Explore the fascinating world of superconducting quantum materials and their applications in future technologies.

Worms to Stars Camp
From microscopic life to outer space! Study tiny worms in our biology lab, then explore the science of flight and spacecraft design.

Jackling Introduction to Engineering - Session 3
Learn what it means to be an engineer through hands on projects and demonstrations.

Discovering Chemistry
Get hands on with atoms and molecules. Join us in the lab to do real chemistry that you can see, smell, touch... and eat!

eSports Boot Camp
Whether you are a novice or a seasoned gamer, this is the perfect place to level up your skills, make new college-bound friends who share your passion, and embark on an unforgettable gaming adventure.

Space - The Final Frontier
Use your math and science skills to design, build and launch a small spacecraft with a high-altitude balloon.

CASE: Apocalypse - Building a New Tomorrow?
Use expertise from CASE disciplines to "rebuild society" following an apocalyptic event. Explore programs through hands-on experiences and group challenges.

Innovations in STEM Camp (iSTEM)
Explore careers in science, engineering, mathematics and technology with demonstrations and activities related to each discipline.

Future City: Electrifying Your Future
Design a futuristic floating city to combat rising water levels and explore innovative solutions for a sustainable future!

CyberMiner Camp
Compete in an AI challenge, build and program robots and so much more!

Free w. Acceptance
ASM Exploring Materials in Your World Camp
Explore material science and engineering principles through demonstrations, field trips and team projects.

Washington University in St. Louis summer programs

https://precollege.wustl.edu/

2025 Applications Now Open

Continue on your path of academic discovery!

Since 1984, Arts & Sciences Pre-College Programs have provided motivated middle and high school students the opportunity to challenge themselves in a supportive and encouraging atmosphere. Choose from a variety of credit and noncredit programs in the humanities, social sciences, and natural sciences.

NOTE: click on specific high school program for information on application process, program dates, deadlines, costs, and financial aid.

Pre-College Programs for High School Students: https://precollege.wustl.edu/programs

- Ancient Studies Institute
- Biological Basis for Human Disease
- Biology of the Brain
- Biomedical Ethics
- Creative Immersion Institute
- Differential Equations
- Early College Scholars Program
- Environmental Studies Institute
- Finite Mathematics
- High School Summer Institutes
- High School Summer Kickstart
- High School Summer Scholars Program
- High School Summer Launch
- Intensive Introductory Latin: From Grammar Basics to Translation
- Introduction to Cultural Anthropology
- Introduction to Environmental Science

- Introduction to Microeconomics
- Introduction to Modern Art, Architecture, and Design
- Introduction to Psychology
- Introduction to Statistics
- Logic and Critical Analysis
- Matrix Algebra
- Metacognating Mario: Learning and Video Games
- Personal Narrative
- Public Speaking: Embodied Communication
- Research Development Institute
- Set in Stone? Monuments, Memory and Public History
- Social Problems and Social Issues
- Spandex, Spangles, and Stripes: Race, Gender, and the American Superhero
- The Roman Empire
- Topics: Banned Books: From the Giver to the Lord of the Flies

Click HERE for dates and deadlines for all programs.

Click HERE for information on Fees and Scholarships.

MINNESOTA

Carleton College: Pre-College: Summer Liberal Arts Institute

https://www.carleton.edu/summer/pre-college/

Pre-College: Summer Liberal Arts Institute

Maximize Your Summer

July 12 – August 1, 2025

The Summer Liberal Arts Institute (SLAI) is an immersive summer learning experience for current high school freshmen, sophomores, and juniors to explore liberal arts through rigorous and experiential curriculum.

Important Dates:

- December 15, 2024: Application Opens
- February 3, 2025: 1st Round Application Deadline
- March 3, 2025: 2nd (Final) Round Application Deadline
- July 12 - August 1, 2025: Pre-College Program Dates

2025 Pre-College Programs:

- **STEM in the Field**
  Geology, Ecology, & Ornithology

- **Seeking Computational Solutions**
  Programming & Beyond

- **Thinking about Feelings: The Science of Emotion**
  Cultural Studies, Cognitive Science, and Psychology

- **Humanities**
  History, Philosophy, Theater, Art History, Mapmaking

- **Reimagining Society**
  Sociology, German Studies, Political Science

- **Storytelling Through Different Lenses**
  Cognitive Psychology, Screenwriting, & Film Music

Afford

- *Costs*
- *Scholarships*

Apply

- *Application Opens December 15!*

Carleton Liberal Arts Experience (CLAE):

Carleton's Admissions Office runs a free, week-long summer academic program for students who have just completed their junior year.

The course is designed for Black and African American students and those interested in African American studies. Course content for this program explores African American history, identity, and contemporary culture.

The 2025 CLAE Application is Open

Apply HERE Now!

Deadline for applications is March 14

WISCONSIN

Milwaukee School of Engineering (MSOE): Explore Summer and Women in Technology Programs

https://www.msoe.edu/academics/high-school-programs/summer-programs-at-msoe/women-technology/

Explore Summer Programs

MSOE's 2025 High School Summer Programs will be offered in July. We hope you can join us this summer!

Explore camps are an opportunity for students to spend the week rotating through half-day programs to learn about each of MSOE's engineering majors and determine which interests them the most. Two majors will be introduced each day through hands-on curriculum. Majors include: construction management, and architectural, biomedical, biomolecular, civil, computer, electrical, mechanical, and software engineering. The Women in Technology Program has identical content to the Explore program.

Session 1

July 6 - July 11, 2025

More information and registration **HERE**

- Explore Week 1
- Focus: Chemical and Biomolecular Engineering
- Focus: Computer Science/Software Engineering
- Focus: Mechanical Engineering
- Focus: Nursing

Women in Technology

July 6 - July 11, 2025

More information and registration **HERE**

Session 2

July 27 - Aug. 1, 2025

More information and registration **HERE**

- Focus: Mechanical Engineering
- Focus: Architectural Engineering and Construction Management
- Focus: Biomedical Engineering
- Focus: Computer Engineering

Indian Student Campus Immersion Summer Program

July 20th - August 1st, 2025. A 2-week immersion program to expose Indian students to MSOE academics, the city of Milwaukee, and fellow potential students

More information and registration **HERE**

Session 3

July 27th, 2025 - August 1st, 2025

- Explore Week 2
- Focus: Computer Science/Software Engineering
- Focus: Business
- Focus: Electrical Engineering

More information and registration **HERE**

Women in Technology

MSOE's 2025 High School Summer Programs will be offered July 6 - July 11. We hope you can join us this summer!

This week-long residential camp will give girls entering 10th through 12th grades an opportunity to explore multiple engineering disciplines. The disciplines explored consist of construction management and architectural, biomedical, biomolecular, civil, computer, electrical, mechanical and software engineering. The academic activities will be taught by MSOE faculty with assistance from female engineering students from MSOE. Students will also take industry tours and be able to apply engineering in the real world. The Women in Technology program has much of the same content as the Explore Summer Program, but with more of a focus on women in the fields of engineering.
In the evening, students will decompress with activities such as interactive comedy shows, bowling, tours of Milwaukee and a game night.

Session

- Camp will run July 6 - July 11, 2025.
- Price: $1,100

University of Wisconsin – Madison: Cooperative Institute for Meteorological Satellite Studies (CIMSS)

http://cimss.ssec.wisc.edu/studentworkshop/index.html

This year's CIMSS Student Workshop on Atmospheric, Satellite, and Earth Sciences will be held **Sunday, 22 June, through Thursday, 26 June 2025**. This in-person camp features an exciting five-day agenda in meteorology, astronomy, remote sensing and geology. Participating students stay on campus in lakeside dorms and experienced science education, research and technology through hands-on activities, working directly with scientists, graduate students and professors.

Students must be entering 10th, 11th or 12th grade in the fall. There has been a lot of interest in this workshop, but space is very limited!

A $100 deposit is due with each application. We have a limited number of partial scholarships available based on financial need. If accepted into the program, all remaining balances will be due 12 May 2025.

Fees cover housing, food, a water bottle, and transportation for field trips.

Please note that the use of cell phones is prohibited during formal instruction.

2025 Workshop: 22-26 June 2025
Deadline for application: 1 April 2025

Final Payment Due: 12 May 2025

2024 Registration - Camp full

We are beginning to work on planning as well as creating a new website. Information on both the virtual and in-person camps will be released in mid-February.

University of Wisconsin – Madison: College of Engineering

https://engineering.wisc.edu/about/inclusion-equity-and-diversity/engineering-summer-program/

The 2025 Engineering Summer Program will take place July 12th – August 1st

Love math and science? Interested in exploring engineering? Apply to ESP!

The 2025 ESP application is now open! Apply here.

The deadline to apply to Engineering Summer Program 2025 is March 3rd at 11:59 PM CDT

The Engineering Summer Program (ESP) is a free, three-week residential program for rising high school juniors and seniors who are interested in engineering. Participants will experience living on UW-Madison's campus while getting a sense of what it means to be a Badger Engineer. Beyond the ESP core curriculum of math, physics, chemistry and engineering design, students will participate in hands-on workshops, visit industry sites, go on field trips, and receive mentoring from faculty. Each ESP participant will build life-long connections while furthering their passion for engineering.

MICHIGAN

Society of Women Engineers at the University of Michigan: SEE Camp

https://www.seecamp.org/

2025 Summer Engineering Exploration Camp

STEM Camp for High School Students

The Summer Engineering Exploration Camp (SEE Camp) is a one week, residential, co-ed camp hosted by the Society of Women Engineers at the University of Michigan. This camp is for high school students entering grades 10-11, especially those with limited access to engineering resources. Campers will learn about various engineering disciplines and industries, as well as learn more about engineering at the University of Michigan.

About Our Camp

SEE Camp is an introductory camp to all types of engineering. We do not expect campers to have any experience in engineering. We will be covering broader topics related to engineering to provide campers an overview of different disciplines.

SEE Camp runs from Sunday, July 6th through Saturday, July 12th, 2025.

The 2025 camp will be held in-person with numerous activities throughout the week.

Application

- Application opens: 12:00 AM EST on January, 8th 2025.
- Application closes: 11:59 PM EST on March 1st, 2025.

Camp Dates

- July 6 to July 12, 2025

Cost

- Cost of camp: $700

Summer Engineering Exploration (SEE) Camp 2025 – **Apply HERE**

Michigan Tech: Summer Youth Programs

https://www.mtu.edu/syp/discover/courses/

Registration for SYP 2025 is now open! We can't wait to see you this summer.

Our 2025 programs will run weekly from June 15 - July 25, 2025.

- Course costs begin at a base price of **$1125 for live-in students,** which includes tuition, program fees, meals, room, and board. See full cost details.
- Course costs begin at a base price **$695 for commuter students,** which includes tuition and meals.
- Some courses have a course or lab fee in addition to the base tuition to cover items such as lab supplies, transportation, permits, admission fees, and other accommodations. Any applicable lab fees are noted in the course description. See full cost details.
- Please register your child based on their **current grade level** this academic year.

Course Catalog

Advanced Building: Gaming Computer
Grade: *9-11*
Week: *July 13 - 18*
Aerospace Engineering (Now accepting Waitlist applications)
Grade: *9-11*
Week: *July 20 - 25*
Autonomous Navigation: LiDAR & Stereo Vision

Grade: *9-11*
Week: *July 20 - 25*
Aviation
Grade: *9-11*
Week: *June 15 - 20*
Biomedical Engineering: Blood and Vessel Behavior
Grade: *9-11*
Week: *July 6 - 11*
Build A Computer
Grade: *9-11*
Week: *July 6 - 11*
Building A Better World: Civil Engineering (HS)
Grade: *9-11*
Week: *July 20 - 25*
CAD & Additive Manufacturing
Grade: *9-11*
Week: *July 20 - 25*
Chemical Engineering
Grade: *9-11*
Week: *July 6 - 11 or July 13 - 18*
Chemical Engineering
Grade: *9-11*
Week: *July 6 - 11 or July 13 - 18*
Chemistry of Color
Grade: *9-11*
Week: *July 20 - 25*
Coding Video Games: A Crash Course
Grade: *9-11*
Week: *July 20 - 25*
Cybersecurity (Now accepting Waitlist applications)
Grade: *9-11*
Week: *July 20 - 25*
Design for the Environment
Grade: *9-11*
Week: *June 22 - 27*
Discover Your Future in Healthcare!
Grade: *9-11*
Week: *June 15 - 20*
Electrical & Computer Engineering (Now accepting Waitlist applications)
Grade: *9-11*
Week: *July 20 - 25*
Engineering 101 - HS (Now accepting Waitlist applications)
Grade: *9-11*
Week: *July 20 - 25*
Engineering Psychology

Grade: *9-11*
Week: *June 22 - 27*
Engineering Scholars Program
Grade: *9-11*
Week: *June 22 - 27*
Exploring Materials Through Chemistry
Grade: *9-11*
Week: *June 15 - 20*
Geohazards & Resource Engineering (HS)
Grade: *9-11*
Week: *July 20 - 25*
How the World Works: Law and Leadership
Grade: *9-11*
Week: *July 6 - 11*
Introduction to Computational Physics
Grade: *9-11*
Week: *June 22 - 27*
Materials Science & Engineering
Grade: *9-11*
Week: *July 13 - 18*
Materials Science & Engineering
Grade: *9-11*
Week: *July 6 - 11*
ME: Automotive Engineering
Grade: *9-11*
Week: *July 20 - 25*
ME: Design the Future (HS)
Grade: *9-11*
Week: *July 13 - 18*
Mechatronics: Build & Program A Functional Robot
Grade: *9-11*
Week: *July 6 - 11*
Metal Casting: Forge Your Future
Grade: *9-11*
Week: *July 20 - 25*
Mobile Robotics
Grade: *9-11*
Week: *July 13 - 18*
Mother Earth - Past, Present, and Future
Grade: *9-11*
Week: *July 13 - 18*
National Summer Transportation Institute
Grade: *9-11*
Week: *July 6 - 18*
NEXT Scholars: Geospatial Engineering

Grade: *9-11*
Week: *June 15 - 20*
NEXT Scholars: Geospatial Engineering
Grade: *9-11*
Week: *June 15 - 20*
NEXT Scholars: Semiconductors
Grade: *9-11*
Week: *July 13 - 18*
Nuclear Science and Its Impacts
Grade: *9-11*
Week: *July 20 - 25*
Outdoor Field Skills in Natural Resources (Now accepting Waitlist applications)
Grade: *9-11*
Week: *July 20 - 25*
Ship to Shore: Freshwater Ecology
Grade: *9-11*
Week: *July 20 - 25*
The MTU Trading Room
Grade: *9-11*
Week: *June 22 - 27*
Tracks to the Future: Railroad Transportation & Engineering
Grade: *9-11*
Week: *June 22 - 27*
Wild World of Chemistry (HS)
Grade: *9-11*
Week: *July 13 - 18*
Wildlife Ecology and Conservation
Grade: *9-11*
Week: *July 13 - 18*
Women in Computer Science
Grade: *9-11*
Week: *June 22 - 27*
Women in Engineering
Grade: *9-11*
Week: *June 15 - 20*
Exploration Category: *Pathway Programs*

Michigan State University: College of Engineering Summer Programs

https://www.egr.msu.edu/future-engineer/summer-programs

High School Engineering Institute (HSEI)

Type: Residential
Who: This co-ed program is open to both U.S. and International students entering grades 10th-12th in Fall 2025 as well as recent graduates.

When: Session 1: June 22-26, 2025; Session 2: July 6-10, 2025; Session 3: July 13-17, 2025
Requirements: (1)High school sophomores, juniors and seniors with GPA 3.0 or better in engineering core courses such as math, sciences and technology. (2) A transcript (preferably of a full year).
Program fee: $1099
Program details

Intended for rising high school sophomores, juniors and seniors seriously considering engineering as their career choice, this residential program is designed to give in-depth experiences in engineering majors. Each day students will learn about a major and spend time with an engineering faculty member, a graduate student, an undergraduate student engaged in short lecture, demonstrations, hands-on activities, team-based problem solving, and tours. Presentations by the Honors College, Admissions Office, Study Abroad and The Center (Co-op/Internship and Undergraduate Research Opportunities) as well as tours of engineering research facilities will be conducted.

- Session 1 Schedule
- Session 2 Schedule
- Session 3 Schedule

Application deadline: June 9, 2025 for session 1; June 23, 2025 for session 2; June 30, 2025 for session 3

Apply

Making a Game of It (MGIT)
Type: Residential
Who: This is a co-ed program open to both U.S. and International students entering grades 11 and 12 in Fall 2025 as well as recent graduates.
When: July 13-18, 2025
Requirements: High school juniors and seniors with GPA 3.0 or better in engineering core courses such as math, sciences and technology. A transcript (preferably of a full year).
Program fee: $1199
Program details

Making a Game of it (MGIT) facilitates students technological growth and provides computer software skills that are directly applicable to STEM related professions. Students participating in this program will:
Develop Software in Python
Design a video game
Be prepared to enter MSU's Computer Science degree granting program
This program is taught by MSU's faculty and graduate students who are experienced researchers and teachers interested in sharing computer and coding skills with future engineering students.

Schedule
Application deadline: June 30, 2025

Apply

Michigan State University – College of Education:

https://education.msu.edu/hshsp/

High School Honors Science, Math and Engineering Program

Regrettably, there will be no HSHSP taking place in the summer of 2025.

Its purpose is to provide students from across the U.S. and territories who are entering 12th grade with the opportunity to engage in intensive research work over a seven-week period and to interact with peers who come from diverse backgrounds but who share a love of science and/or mathematics.

The Michigan State University High School Honors Science/Engineering/Mathematics Program (HSHSP) is a seven-week, intensive summer research program designed for motivated students from across the United States who wish to gain more experience conducting research while living on the campus of a major research-intensive university.

Anyone who is presently a high school junior may apply.

INDIANA

Purdue University: College of Engineering

https://engineering.purdue.edu/Honors/SeminarforTopEngineeringProspects

Seminar for Top Engineering Prospects (STEP)

Discover Your Future at STEP: The Ultimate Summer Camp for Aspiring Engineers!

Ready to turn your passion for innovation into the foundation of an extraordinary career? STEP (Seminar for Top Engineering Prospects) is more than just a summer camp—it's your gateway to the world of engineering excellence. Join like-minded high school students from across the nation for hands-on projects, expert mentorship, and unforgettable experiences that will inspire your potential and shape your future.

Dream big. Build bigger. Take your first step with STEP!

Explore Engineering at Purdue University!

Since 1985, the Seminar for Top Engineering Prospects (STEP) has offered a unique, week-long summer residential program for rising high school seniors. STEP provides an exciting opportunity to dive into various engineering disciplines through hands-on learning, teamwork, and innovative challenges.

Who Should Apply?

- Open to rising high school seniors (Class of 2026).
- Recommended: Completion of three years of high school math and one year of chemistry or physics by summer 2025.

2025 Dates

- Session 1: July 6 to July 12
- Session 2: July 13 to July 19
- Session 3: July 20 to July 26
- Session 4: July 27 to August 2

Location: Purdue University, West Lafayette, IN campus

Attendance Fee: $2,500
***Scholarships:** Need-based scholarships are available. Contact the College of Engineering Honors Program, step@purdue.edu after being accepted in the program.

APPLICATION IS OPEN!
APPLY NOW

Purdue University: Minority Engineering Program

https://engineering.purdue.edu/MEP/pre-college-programs/multiethnic-introduction-to-engineering-mite

2025 Multiethnic Introduction to Engineering (MITE) program

The Multiethnic Introduction to Engineering (MITE) program was developed in the summer of 1975 at Purdue University. MITE is a two-week, two-credit college simulation program modeled after the Engineering Academic Boot Camp that focuses on college readiness with a strong emphasis on math and engineering projects. MITE is an outreach strategy aiming to attract underrepresented students (i.e., African American, Native American, Hispanic American) to pursue engineering at Purdue.

Participants will live in one of Purdue University's world-class residence halls, engage with students from across the nation in various activities and meet current undergraduate and graduate engineering students, faculty and administrators. Participants will learn about Purdue's 18 engineering majors and a wide variety of potential engineering careers. Participants have seen an average improvement of SAT math scores of 90 points. The highest increase was 180 points as measured through pre- and post-testing. All participants may apply to Purdue at the close of the program.

2025 dates

- July 6-18, 2025
- **Interest form** deadline: April 4, 2025
- Admissions application packet deadline: April 15, 2025
- Enrollment package deadline: May 15, 2025

Program content

- Engineering research and design
- Mathematics and Chemistry
- Engineering projects
- English composition and writing
- SAT review
- Time management

Hands-on projects

Students learn about the engineering design process used to solve some of the world's most pertinent challenges. They will complete two engineering design projects led by graduate assistants and engage in friendly competition while developing presentation skills.

Academic relations

Participants will leave with skills to help them improve their academic profile. With a strong focus on mathematics, students will have two pre-assessments and receive a license for an online educational program that they can continue to use after the program has concluded.

MITE Program Cost:

Indiana residents: $1,554.78

Domestic nonresidents: $2,755.68

Affordability

- Scholarships are available for students who meet need-based scholarship requirements.

Purdue University: Summer College for High School Students

https://www.purdue.edu/summer-high-school/enrollment-options/Short-Term%20Courses.php#:~:text=MITE%20%2D%20Multiethnic%20Introduction%20to%20Engineering&text=MITE%20is%20a%20two%2Dweek,on%20math%20and%20engineering%20projects.

Short-Term, For-Credit Courses

The application for Summer 2025 will open on December 1, 2024.

Purdue University is excited to offer intensive short-term course opportunities for high school students during June and July. Move-in and orientation for each experience will occur on Sunday and class sessions begin on Monday.

When you submit an application for Summer College for High School Students, you will indicate up to three preferences for short-term courses. While you may only select up to three preferences, you may be considered for any program under Summer College for High School Students. Submitting an application for a single program does not guarantee admission into that program.

Click here to view an example schedule from last summer.

NOTE: To view the short-term courses that are available for Summer 2025, visit this website and click these specifics weeks to view which courses are being offered each week.

Week 1: June 22 - 27

Week 2: July 6 - 11

Weeks 2 & 3: July 6 - 18

Week 3: July 13 - 18

Week 4: July 20 - 25

Week 5: July 27 - August 1

ILLINOIS

University of Chicago

https://summer.uchicago.edu/pre-college-students

Pre-College Programs

The University of Chicago's Summer Session brings together a global community of thinkers who are excited by interesting questions and seek to engage new ideas. Discover diverse program opportunities designed to challenge and engage curious high school students this summer across a variety of subject areas and disciplines. Within a supportive community, pre-college students are given the chance to take intellectual risks, dive more deeply into subject matter, and discuss questions that go beyond the realm of their high school curriculum, while experiencing a dynamic campus situated in scenic Hyde Park in the city of Chicago during the best season of the year — summer!

Residential Programs

1 Week Enrichment (March 5, 2025 deadline)

Enrichment courses provide students the opportunity to have a short-term academic and residential experience at a research institution with a strong liberal arts curriculum.

Explore 1 Week Enrichment

2 Week Career Insight (three deadlines: Priority (January 22, 2025), Regular (March 5, 2025), and Extended (April 9, 2025)

New! These non-credit courses connect academic coursework with potential career pathways through readings, projects, site visits, and discussion panels with alumni and industry experts.

Explore 2 Week Career Insight

3 Week Immersion three deadlines: Priority (January 22, 2025), Regular (March 5, 2025), and Extended (April 9, 2025).

Immerse yourself in an undergraduate-level course taught by UChicago faculty and lecturers, where you have the opportunity to explore a topic in-depth through discussions, projects, field trips, and other activities.

Explore 3 Week Immersion

4 Week Practicum (One deadline to submit your application: Priority (January 22, 2025)

These intensive, hands-on and field-driven programs are intended to give students an in-depth research experience. Learn cutting-edge techniques in biological research with Research in the Biological Sciences, or take your learning further by going into the field in Wyoming and exploring behind the scenes at the Field Museum with Stones and Bones.

Explore 4 Week Practicum

Remote Programs (three deadlines: Priority (January 22, 2025), Regular (March 5, 2025), and Extended (April 9, 2025)

3-5 Week Summer Online

Join UChicago online this summer to explore new subjects or deepen your knowledge in existing interests through undergraduate-level courses designed for pre-college students or in College courses you can take alongside UChicago undergraduates.
Explore Summer Online

Click on each Week to get more information on Costs, Scholarships, and Application Information.

Course Finder
Find a course that meets your criteria. Search by subject, session, time, and modality.
Start Exploring

UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN - The Grainger College of Engineering

https://wyse.grainger.illinois.edu/summer-programs

The Grainger College of Engineering
Worldwide Youth in Science and Engineering Program – Summer 2025 Programs

As the pre-college outreach and public engagement unit in the Grainger College of Engineering, WYSE offers a variety of summer enrichment programs for pre-college youth from near and far. Get a taste of college life while exploring various engineering fields or researching side-by-side with Illinois faculty and students - in Champaign-Urbana, in Chicago, and virtually.

Grainger Engineering Summer Camps
Grainger Engineering Summer Camps are designed to provide STEM-interested students the opportunity to experience authentic and challenging projects and activities, world-class instructors, and a collegiate experience from one of the best engineering schools in the world. The camps provide exposure to different areas of engineering through demonstrations, lab tours, classroom presentations, hands-on activities, and interactions with various students, staff, and professors in those fields. **Summer camps are available for middle and high school-aged students (rising 7th – 12th grade) and are available for all genders.**

Summer 2025 Camp Offerings
Survey of Engineering Sessions
Want to learn more about the different types of engineering available for study or future careers? Sample 10+ Engineering majors or fields by attending a Survey of Engineering camp session.

Camp Name	Dates	For Students Entering this Grade	Camp Type(s)
Exploring Your Options (EYO)	• June 22 - 28 (Session 1) • July 13 - 19 (Session 2)	9th - 12th	• Residential • Commuter

3-D (Deeper Dive into a Discipline) Sessions

Take a Deeper Dive into a Discipline (3-D) of Engineering with a full week of focused exploration.

Camp Name	Dates	For Students Entering this Grade	Camp Type(s)
Aerospace Engineering Camp [*EAGER]	• Jul 6 - 12	10th - 12th	• Residential • Commuter
City Designers and Builders Camp (CEE)	• Jul 20 - 26	10th - 12th	• Residential • Commuter
CURIE: Catalyzing UR Interest in Chemical Engineering [*IDEA]	• July 27 - Aug 2	10th - 12th	• Residential • Commuter
Exploring Mechanical Science and Engineering Camp [*EAGER]	• Jul 20 - 26	10th - 12th	• Residential • Commuter
Exploring Nuclear, Plasma, and Radiological Engineering Camp	• Jun 22 - 28	11th - 12th	• Residential • Commuter
GEMS: Material Science and Engineering Camp [*EAGER]	• Jul 27 - Aug 2	10th - 12th	• Residential • Commuter
Illinois Aerospace Institute (IAI)	• June 22 - 28 (Residential) • July 13 - 19 (Residential) • July 20 - 26 (Virtual)	9th - 12th	• Residential • Virtual
Learning Electronics, AI, and Programming (LEAP) Camp [*IDEA]	• June 22 - 28	10th - 12th	• Residential • Commuter
Mid-GLAM - Materials Science & Engineering Middle School Daycamp [*EAGER]	• June 16 - 20 (no camp June 19)	7th - 9th	• Day Camp
Molecule Maker Camp [*IDEA]	• July 20 - 26	10th - 12th	• Residential • Commuter
Power of Bioengineering Camp [*IDEA]	• Jul 13 - 19	9th - 12th	• Residential • Commuter
Roboscape Cybersecurity Camp	• Jul 20 - 26	11th - 12th	• Residential • Commuter
Saving FACE (Food, Agriculture, Construction, & Environment) Around the World	• July 27 - Aug 2	10th - 12th	• Residential • Commuter
Video Game Design Summer Camp (VGD)	• July 6 - 12	9th - 12th	• Residential • Commuter

Summer Camp Application and Deadline(s)
Priority Deadline: March 30, 2025

2025 Summer Camps Application

How much do camps cost?

For Summer 2025:

- Camp costs do NOT include transportation to and from campus, which is the family's responsibility.
- In-person, RESIDENTIAL camps: $1,000 per camper unless otherwise indicated.
- In-person, COMMUTER option: $600 per camper unless otherwise indicated. This covers all expenses listed for residential camps except for overnight accommodations.
- In-person, DAY CAMPS: $550 per camper unless otherwise indicated. This covers expenses listed for residential camps except for housing and there are no evening extracurricular activities.
- Some camps may have different pricing structures due to other funding sources. Visit the individual camp web pages for camp-specific information.

Camp FAQs

Western Illinois University - Summer Camps

http://www.wiu.edu/sao/outreach/youth_enrichment/youthmain.php

2025 Summer Camps

CSI Experience

June 15-19, 2025

Cost: TBD

Are you fascinated by criminal behavior and crime scene investigations? Do you want to learn how detectives solve crimes, interview individuals, detect deception, and analyze evidence? Then come participate in this interactive, hands-on experience with former FBI agents, State Police Commanders, prosecutors, judges, first responders, and criminal investigators with decades of experience in narcotics, homicide, cyber tracking, crisis management, behavioral analysis, and a variety of other public safety and disaster-related investigations.

Art: Colorful Minds & Creative Hands

June 22-27, 2025

Cost: TBD

Western Illinois University's Summer Art Program is designed for students in grades 9 through 12. This is a 1- week program of art workshops led by local artists and faculty from WIU's Department of Art & Design. A great learning experience for those excited about art and/or what it might be like to be an art student at WIU!

Western Writers

June 22/23-26, 2025

Cost: Residential: $450 (Includes housing, meals and supplies) / Commuter: $300 (Includes lunch and supplies)

Do you love write? Love to read? Great! Learn about the craft of writing WHILE you read! NEW this summer, Western Writers will give high schools the opportunity to spend some time on the campus of Western Illinois University with faculty of the Department of English, local writers and WIU alumni who are now teaching in the region. Participants get to eat & sleep on-campus, are given the opportunity to visit the rec center & University

Bookstore and will hopefully go home with some new friends who all love writing and reading just as much as they do!

WIU's STEM CAMP

July 6-11, 2025

Cost: Residental: $500 / Commuter: $350

WIU's STEM Camp is a unique summer camp opportunity for 9th -12th graders with an interest in science who want to explore careers in various scientific fields. This five day long program will provide instruction and scientific activities from a variety of disciplines. It is being offered as a learning experience for those interested, with the goal of keeping our students academically engaged this upcoming summer.

WIU Outreach Summer Camp APPLICATION - 2025

SOUTH

TEXAS

University of Texas at Austin: My Introduction to Engineering (MITE)

https://cockrell.utexas.edu/connect/k-12-outreach/mite

My Introduction to Engineering (MITE) - 2025

MITE is a five-day summer camp for current high school juniors to discover engineering through participation in an engineering team project, hands-on activities and interactions with engineering students, faculty, staff and alumni.

MITE is open to students with strong interests in engineering, science or math. Fifty students will be selected to attend each session. All students are welcome to apply and must reside in the United States. Those who have overcome socio-economic hardship or have had limited exposure to engineering courses in their high school are strongly encouraged to apply.

Student participants are housed in a campus dorm.

Deadline for registration: March 17, 2025

REGISTRATION NOW OPEN

Summer 2025 Dates

- **Session 1**: June 22 - June 26
- **Session 2**: July 6 - July 10

Cost: $100

Payment will only be submitted once a participant is accepted into the program.

Application Criteria:

- High school transcripts must now be electronically uploaded to our Ideal Logic platform

- Applicants must be current high school juniors and reside in the United States when they submit their application. Sign up to receive general information from Texas Admissions.
- Applicants should meet **at least one** of the following academic criteria by the deadline for their application to be considered:
    - An SAT Math score of 620 or above (600 or above if the test was taken before March 2016)
    - An ACT Math score of 26 or above
    - An Advanced Placement (AP) Calculus AB or BC test score of 3 or higher
    - An International Baccalaureate (IB) HL or SL Mathematics score of 4 or higher
    - An official college or university transcript showing credit for a college-level Calculus I (or higher) course with a grade of C or higher
    - An official high school transcript showing credit for a Calculus I (or higher) course with a grade of C or higher
    - An official high school transcript showing credit for a Precalculus course with a grade of C or higher
    - Five years or more of high school math courses at or above the level of Algebra I

  *If these scores are available, applicants can add their results to their applications. However, if applicants do not have these scores on file, students can utilize the other criteria listed above to complete their application.
- Upload a copy of birth certificate and/or copy of passport to Ideal Logic or email to cseoutreach@utexas.edu
    - A $100 non-refundable deposit will be paid on Ideal Logic once accepted into the program

MITE Application

Texas A&M Engineering Summer Camps

https://engineering.tamu.edu/aerospace/prospective-students/undergraduate/camp-soar.html

Program Dates: Our Bi-Annual Camp SOAR will take place in Summer 2026. Check back in Fall 2025 for more information.

2024 - Camp SOAR (Summer Opportunities in Aerospace Research)

Camp SOAR is a five day summer camp designed to expose rising high school juniors and seniors with an interest in aerospace engineering to the research and facilities at Texas A&M University's Department of Aerospace Engineering. During the five days at Texas A&M, campers explore the field through hands-on design projects and tours of our research facilities.

Camp SOAR offers participants three tracks: airplanes, helicopters and space.

The campers design and build a project within their track. Throughout the experience, campers are introduced to the engineering design process and develop critical thinking and teamwork skills.

Outside of their design work, campers visit many of our facilities while they're on campus including the Vehicle Systems & Control Laboratory, Land Air and Space Robotics Laboratory and the hypersonic wind tunnels of the National Aerothermochemistry and Hypersonics Laboratory. They also have the opportunity to learn from our world renowned faculty and engage one-on-one with current aerospace engineering students.

Program Dates:

Camp SOAR 2024 is scheduled for June 2-6, 2024.

Eligibility:

Students enrolled as high school juniors or seniors as of Fall are eligible to apply. Out-of-state applicants are welcome!

Application Requirements:

- Recent unofficial high school transcript
- Camp SOAR application essay
- Nonrefundable $35 application fee

Cost:

Camp SOAR cost includes room, board and camp activities. Financial need-based scholarships are available.

Texas Tech University: Anson L. Clark Scholars Program

https://www.depts.ttu.edu/honors/academicsandenrichment/affiliatedandhighschool/clarks/

The Anson L. Clark Scholars Program

The Anson L. Clark Scholar Program is an intensive seven-week summer research program for twelve highly qualified high school juniors and seniors.

The Clark Scholars Program is designed to attract gifted students from around the nation and globe. The program allows students the opportunity to work hand-in-hand with outstanding faculty on the general academic campus and the Health Science Center in a research intensive setting. The seven-week program also includes weekly seminars, discussions, and field trips. The students are afforded an atmosphere designed to develop their critical thinking abilities and career interests with faculty and other students like themselves. Students are selected on the basis of their academic accomplishments, teacher recommendations and career objectives. Each year, applicant pools are very competitive. For example, the average SAT score for the 12 participants each summer is usually in the 99th percentile.

Application Deadline: **February 24, 2025 at 11:59 PM CST.**
2025 Summer Program Dates: **June 22, 2025 to August 7, 2025**
Cost: **Free**
Areas of Research: Biology/Cellular & Microbiology, Cancer Biology, Chemistry, Computer Science, Electrical and Computer Engineering, History, Mechanical Engineering: Cancer Bioimaging, Physics

Eligibility

- Applicants must be at least 17 years of age by the program start date, and should graduate in 2025 or 2026. (This means they will participate the summer before senior year or the summer after senior graduation of high school.) **NO EXCEPTIONS - Emails requesting exceptions will not be answered.**
- Must be a U.S. Citizen or Permanent Resident.

Application Components

Apply To Clark Scholars

EAST/MID-ATLANTIC

MAINE

Hog Island Audubon Camp in Maine

http://hogisland.audubon.org/bird-studies-teens

2025 Programs: Coastal Maine Bird Studies for Teens

Sessions:

- ***June 8 – June 13, 2025 &***
- ***June 15 – June 20, 2025***

SESSION TWO (June 15-20) SOLD OUT - Use registration link below to join the waitlist.

Registration is open now for the 2025 Camp season! All campers must agree to the Camper Guidelines and Cancellation Policy. Please read this policy before registering.

The National Audubon Society is in the process of updating our health forms for the upcoming season. You will receive a notification from Camp Docs and Hog Island when health forms, required for attending Hog Island, open in February.

The deadline to pay your tuition in full and complete your registration forms is April 1, 2025.

REGISTER NOW
Find answers to frequently asked questions about lodging, transportation, schedules, packing lists, meals, and more here. For technical support with CampDoc, please visit their help page or contact support@campdoc.com.

Coastal Maine Bird Studies for Teens is designed for youth aged 14-17 who want to be a part of a community of passionate, caring, and curious young people with an interest in birding. If you are a young birder who wants to further develop your skills, adventure to birding hot spots in coastal Maine, learn about coastal ecology and conservation, make new friends, and have fun doing it then this session is for you!

Throughout the week you will immerse yourself in the bounties of summertime on the Maine coast through activities like boat trips, field trips to mainland birding spots, tide pooling, spruce forest hikes, nature journaling and more! You will experience the diversity of birds that summer in coastal Maine and gain a deep understanding of their habitat, food sources, ecology, and conservation. This session has the VERY special privilege of landing on Eastern Egg Rock to experience a day in the life of a seabird researcher (weather and seas permitting).

Cost:
- Pricing: $1725
- The base registration fee includes meals, housing, instruction, and all field trips. This price is based on a standard shared room (with 2 twin beds) a shared bathroom.
- Please see our scholarships page for more information about Hog Island Scholarships. You should also check with your local Audubon chapter or bird club for additional opportunities.

MARYLAND

Johns Hopkins: Whiting School of Engineering
https://ei.jhu.edu/programs/

Johns Hopkins Engineering Innovation Pre-College Programs - 2025

You can be an engineer. Your future is yours to own, to shape, to decide. Our programs put that control in your hands, literally!

When you take one of our courses, you will collaborate with like-minded peers while experimenting, designing, creating, and learning to think like an engineer. Create a device to enhance the well-being of the user, improve the efficiency of wind energy, or design a spaghetti bridge to hold upwards of 200 pounds! We've blended collaborative and fun activities that will broaden your thinking about what's possible with engineering. Top it all off with college credit!

Live on-campus like a college student, commute, or log on and join other STEM-loving students from around the world for the experience of a lifetime.

Not sure what program is right for you? Compare our programs side by side.

Explore Engineering Innovation	**Biomedical Engineering Innovation**	**Sustainable Energy Engineering**	**Intro to Python**
Explore a variety of engineering disciplines	Introduction to biomedical engineering concepts	Study the science and engineering behind methods of energy production	Introduction to programming with Python
Chemical, civil, electrical, mechanical, and materials science	Solve biological, physiological, and/or medical problems	Sources of energy, energy storage and transfer, and the impact of social and political factors	Python basics: data types, conditionals, data structures, iterators, file I/O, functions, and code formatting.
In-person (residential and commuter), **Online**, and **Hybrid**	**Online – mostly asynchronous**	**In-person (residential and commuter)**	**Online – asynchronous**
three JHU Credits	three JHU Credits	three JHU Credits	one JHU Credit
In-person: June 30 – July 25 (move-in day June 29) Online: June 30 – August 1 Hybrid: Session 1, online June 16 – 27, in-person June	June 23 – August 1 Three required online design meetings Regular, optional, online study sessions	In-person: June 30 – July 25 (move-in day June 29) Daily class meetings; Mon – Fri	Spring Session 2: March 24 – May 5 Summer Session 1: May 19 – June 30 Summer Session 2:

29 – July 11 (no class on July 4) Hybrid: Session 2: online July 7 – 18, in-person July 20 – August 1 Daily class meetings; Mon – Fri			June 30 – Aug 11 A six-week consecutive program

Deadlines and Decisions

When is the Application Deadline?

- Admission decisions to Engineering Innovation's pre-college programs are made on a rolling basis, and only completed applications are considered.
- As with any rolling admission process, more spots are available earlier than later, so complete your application early. Decisions for completed applications will be released within one month or sooner.

Summer 2025 Pre-College Programs Deadlines

- **Early Action Deadline**
  Friday, Feb. 14, 2025
  You're encouraged to apply to your program of choice early! All spots are first come, first serve. Any applications completed by this date will be considered in the first round. All parts of your application must be submitted. If any documentation is missing, it will be pushed to a later decision date. If you apply by this date, you'll be notified of your application status by March 3.

Deadline to Apply for EEI Hybrid

If you are a student interested in EEI Hybrid, choose your session and apply by that date.

- **Session 1: Friday, May 2, 2025**
  Session 2: Friday, May 28, 2025

Final Deadline to Apply

- **Friday, May 28, 2025**
  This is the final deadline for all applicants. Engineering Innovation only reviews completed applications. To ensure completeness, Engineering Innovation must receive all required components, as outlined in the Application Review section at the top of this page, by the specified deadline.

Intro to Python Programs Deadlines

If you are a student interested in Intro to Python, choose your session and apply by that date.
Deadline to Apply for Spring Sessions

- **Monday, March 3, 2025**

Deadline to Apply for Summer Sessions
- **Session 1: Friday, May 2, 2025**
  Session 2: Friday, May 28, 2025

Cost:
- The cost to attend a Johns Hopkins Engineering Innovation Pre-College Program varies by program and format.
- Please see the differences on the link **HERE**.

Apply HERE

MASSACHUSETTS

Boston University: RISE Internship / Practicum

https://www.bu.edu/summer/high-school-programs/rise-internship-practicum/

RISE Internship / Practicum
A 6-week program
If you're passionate about the sciences and are a domestic student currently in your junior year of high school, we invite you to apply for the Research in Science & Engineering (RISE) program. You will spend six weeks at BU conducting university laboratory research with some of the nation's brightest scientific minds while advancing your STEM knowledge and skills.

RISE offers two tracks: Internship and Practicum.

2025 RISE calendar

Residential begins	June 29
Residential ends	August 8
Commuter begins	June 30
Commuter ends	August 8

RISE: Tuition, Aid & Payment

Application Fee (nonrefundable): $60
Tuition*: $5,700
Service Fees: $485
Student Health Services**: $25 per visit
Room & Board Options***
- 14 meals per week $3,276
- 19 meals per week $3,600

RISE: How to APPLY

Boston University: Department of Mathematics and Statistics

https://promys.org/programs/promys/for-students/

PROMYS is a six-week summer program in mathematics for strongly motivated high school students who are carefully selected from across the U.S. and around the world. Founded in 1989, PROMYS is a residential program held on the campus of Boston University with approximately 80 high school students and 25 undergraduate counselors.
Key Dates

PROMYS 2025: June 29 – August 9, 2025

- **Application Deadline: March 3, 2025 at 11:59 pm EST**
- **Admissions Decisions: by April 30, 2025**

Cost and Financial Aid & Scholarships

- PROMYS believes that cost should not be a barrier to participation. The program is **FREE** for domestic students whose families make under $80,000 per year. Please see the Financial Aid & Scholarships page to learn about **full and partial** need-based financial aid (including room and board), scholarships, fellowships, and other awards. Financial aid for international students is considered on a case-by-case basis.
- **Cost in 2025: Up to $7,000 for the six-week residential program, depending on financial aid award**. [The actual per-student cost to PROMYS of over $9,000 is subsidized for all students thanks to donors and sponsors.]

Eligibility

Students must satisfy **ALL** the following criteria by the first day of the program:

- Be at least 14 years old
- Have completed 9th grade (or its equivalent)
- Not yet enrolled as a full-time college or university student

Application Process

Four components of the application must be submitted by the deadline:

1. solutions to a challenging problem set
2. letter of recommendation
3. high school transcript
4. application form which includes short answers

Apply HERE

Smith College: Summer Science and Engineering Program

https://www.smith.edu/academics/programs-courses/precollege-programs

2025 PRECOLLEGE PROGRAMS

Smith Precollege Programs are open to students entering 9th–12th grade in the fall of 2025. Smith is a residential women's college. Our Precollege Programs offer a Smith experience for high school students. Review our Codes of Conduct for students and parents/guardians to ensure that this program is the right fit for you. College credit is not offered.

Summer Precollege Programs

College Readiness Workshop

July 20–26, 2025

This one-week precollege program will help you prepare for college. It is for those who need to catch up after remote learning, want to broaden their academic skills or need guidance in preparing their applications.

Creative Writing Workshop

July 5–18, 2025

The Creative Writing Workshop lets you explore your writing in a creative and supportive environment. This program will foster your love of writing in a variety of mediums. All levels of writing welcome in this inclusive workshop.

Summer Science & Engineering

July 5–18; July 20–August 2, 2025

The Summer Science and Engineering Program is for exceptional students interested in science and engineering. You will engage in lab-based courses with Smith faculty in life and physical sciences and engineering.

Sustainable Futures

July 20–August 2, 2025

How do activists, organizers, change agents and everyday individuals who value the health of environmental systems maintain their work? Join like-minded individuals who believe in the possibility of positive change and want to come together to shape a different tomorrow.

Women, Gender, & Representation

July 20–August 2, 2025

Explore your interests in women in politics and history, intersectional feminism and race in literature and beyond. All courses in this program give attention to historical context and use an intersectional analytical framework.

Dates & Deadlines

Date	Item Due
December 10, 2024	**2025 Program Application Opens** Application reviews start after January 4 and then are done on a rolling basis until programs are filled.
February 1, 2025	**Priority Application Deadline** Complete an application by February 1 to be considered a priority applicant. All applicants will hear back by February 14.

Date	Item Due
March 1, 2025	**Financial Aid Deadline** Apply by the date if you are submitting a financial aid application. All applicants who are applying for financial aid will hear back by March 21.
April 15, 2025	**Application Fee Increases** The application fee increases to $100.
May 1, 2025	**Application Closes** Last day to apply.
May 15, 2025	**Final Program Payments Due**

Once all completed application materials are received, students are notified within 14 days of their acceptance status.

Admission is determined on a rolling basis. Students are encouraged to submit a completed application as soon as possible. Applications close on May 1, 2025, 11:59 p.m. ET, or once they reach capacity, whichever comes first.

Details on Application Requirements

2025 Precollege Application HERE

Massachusetts Institute of Technology: MIT Women's Technology Program

https://web.mit.edu/wtp/

About the Women's Technology Program:

Our goal: To spark interest in the future study of engineering among high school rising seniors who are unsure about their future plans.

View this YouTube video to learn more about WTP!

The MIT Women's Technology Program (WTP) is a rigorous four-week summer academic experience to introduce high school students to engineering through hands-on classes, labs, and team-based projects in the **summer after 11th grade**.
WTP is designed for students who are excited about learning, have demonstrated their ability to excel at math and science in their high school classes, and who have ***no prior background (or very little) in engineering*** with few opportunities to explore these fields. This program is designed for students unsure about their future studies to help them explore the world of engineering and see if it's the right fit.

Program Details:

- 4-week program in Mechanical Engineering
- Sat June 28 - Sat July 26, 2025
- Housing provided in MIT dorms

Application:

- FREE TO APPLY
- **Application for 2025 is CLOSED**
  NOTE: The Electrical Engineering and Computer Science (EECS) track of the Women's Technology Program is on hiatus so will not be offered in the summer of 2025. High school students who already have experience in engineering, or who are interested in exploring computer science or other fields of engineering: check our **Resources** page.

Learn More

Please explore our web site by clicking on the links to the left.

- **Application** - details about who should apply and how to apply.
- **Calendar** - program dates and deadlines.
- **Frequently Asked Questions (FAQ)** - Please look through our FAQ before contacting us.

Massachusetts Institute of Technology: MITES Summer

https://mites.mit.edu/discover-mites/mites-summer/

MITES Summer - 2025

Join MITES Summer (formerly MITES) for our six-week, on-campus program that immerses students from across the country in life at MIT. You'll take five rigorous, rewarding math, science, and humanities courses—and discover all you can achieve. You'll also participate in lab tours and social events, and benefit from college admissions counseling. This national program gives you firsthand insights into the value and reward of STEM degrees and careers, while also developing the academic and personal skills you need for success.

Free of charge

- All program-related costs are covered by generous individuals, foundations, corporations, and MIT. Students only pay for transportation to and from MIT.

Eligibility requirements

To be eligible to apply to MITES Summer, applicants must be:

- U.S. citizens or permanent residents
- High school juniors

What you'll learn

- A semester of college condensed into one invigorating summer, the MITES Summer program includes high-level math and science, as well as electives that focus on real-world STEM applications—from Machine Learning to Architecture to Genomics—what most high school curricula don't cover. You'll learn about the impact of STEM on society and how to use your knowledge to build a better world.

- You'll discover firsthand what it's like to be a student at MIT, and gain insight into how to apply to colleges, all while laying the groundwork for you to thrive in STEM professions.

The details

- Six weeks over the summer—late June through early August
- Classes, recitations, workshops, and tours on weekdays 9:00am to 5:00pm
- Social events, office hours/homework, and exploration of the Greater Boston area on evenings and weekends
- Room and board provided free of charge

Apply HERE to MITES Summer

MIT: Lincoln Laboratory Radar Introduction for Student Engineers (LLRISE) Program

https://www.ll.mit.edu/outreach/llrise

LLRISE - 2025

Lincoln Laboratory Radar Introduction for Student Engineers (LLRISE) is a two-week radar workshop for rising high school seniors.

Outreach Type: STEM Program
Audience: High School (Rising Senior)

Applications are now open.

What is the LLRISE program?

The Lincoln Laboratory Radar Introduction for Student Engineers (LLRISE) program is a summer workshop teaching students how to build small radar systems. This summer STEM program is a FREE two-week project-based enrichment program for outstanding students currently in their junior year in high school.

In 2025, the workshop will be held July 13 – July 26.

What will participants do?

Students will gain an in-depth experience in building small radar systems. Participants will be challenged to build a Doppler and range radar by using creative problem-solving strategies. This hands-on program allows students to work with highly talented scientists and engineers.

What is the cost?

LLRISE is free. Students only pay for their transportation to and from MIT. Transportation to Lincoln Laboratory will be provided.

To be eligible:

- Be a U.S. citizen (foreign citizens who are permanent residents are not eligible)

- Be passionate about science, math, and engineering
- Be completing your junior year in high school

Important dates for 2025 Workshop:

- March 12, 2025 10:00 PM EST Application deadline. Applications must be submitted online by 10:00 PM EST or earlier.
- March 19, 2025 11:59 PM EST All recommendations due.
- Mid-May 2025 Admission decisions sent via email.
- July 13, 2025 Move-in day
- July 26, 2025 Last day of program.

Applications are now open for the 2025 program. Apply online HERE.

Research Science Institute – Center for Excellence in Education (at MIT)

https://www.cee.org/programs/apply-rsi

Applications for RSI 2025 are now closed (as of 2/6/2025). No late applications will be considered.

Each summer, 100 of the world's most accomplished high school students gather at the Massachusetts Institute of Technology (MIT) for the Research Science Institute (RSI). RSI is the first cost-free to students, summer science & engineering program to combine on-campus course work in scientific theory with off-campus work in science and technology research.

Note: Applications for RSI 2024 are now closed. Thank you to all applicants! No late applications will be considered. The deadline was December 13, 2023.

RSI Admissions Guidelines

RSI participants have exceptionally strong academic ability and background and are about to enter their last year of high school. Typically, this means students apply in the middle of their junior year (a.k.a. third year, or grade 11) of high school. High school seniors are not eligible to apply.

NEW YORK

Cornell University: School of Continuing Education

https://sce.cornell.edu/precollege

Precollege Studies

Apply now for Summer 2025 courses

Join us for residential, commuter, or online programs and get a head start on college by taking fascinating undergraduate courses. Classes fill quickly; **apply now**!

Summer Online Program

- Get a head start on college by earning credits from Cornell online
- Cornell's online classes are regular, credit-bearing Cornell courses taught by Cornell instructors. The grades and credits earn through these courses are recorded on an official Cornell transcript.
- Dozens of course across the academic spectrum available, from American Sign Language to Biomedical Sciences to Statistical Science

Course Dates:

Three-week session 1

- Class dates: June 2–20, 2025
- Application deadline: May 5, 2025

Three-week session 2

- Class dates: June 23–July 11, 2025
- Application deadline: May 19, 2025

Three-week session 3

- Class dates: July 14–August 1, 2025
- Application deadline: June 16, 2025

Six-week session

- Class dates: June 23–August 1, 2025
- Application deadline: May 19, 2025

Cost:

- Tuition is $1,840 per credit for fall 2024 through summer 2025.
- Example: A three-credit course at $1,840 per credit = $5,520
- Click **HERE** for more information on Tuition for Summer Online Program

Summer Residential Program

- Live on the beautiful Cornell campus as you take undergraduate courses and meet students from around the world.

Program Dates and Deadlines

Three-week session 1

- There are no residential options available during this session. Instead, students may apply for the Summer Online or Summer Commuter programs.

Three-week session 2

- Class dates: June 23–July 11, 2025
- Program dates: June 22–July 12, 2025
- Application deadline: May 1, 2025

Three-week session 3

- Class dates: July 14–August 1, 2025
- Program dates: July 13–August 2, 2025
- Application deadline: May 1, 2025

Six-week session

- Class dates: June 23–August 1, 2025
- Program dates: June 22–August 2, 2025
- Application deadline: May 1, 2025

Cost:

For detailed information on tuition costs for the Summer Residential Program – **visit HERE**

Courses Available:

Three-week 2 courses

Program dates: June 22–July 12, 2025

- ANSC 1120: Sustainable Animal Husbandry (3 credits)
- GOVT 1817: Making Sense of World Politics (4 credits)
- HADM 3365: Foodservice Management Essentials (3 credits)
- HD 2170: Adolescence and Emerging Adulthood (3 credits)
- ILRGL 2200: Argumentation and Debate (3 credits)
- VTBMS 1200: Veterinary Medicine: Science and Practice (3 credits)

Three-week 3 courses

Program dates: July 13–August 2, 2025

- AEM 2400: Marketing (3 credits)
- CS 1109: Fundamental Programming Concepts (2 credits)
- ENGRI 1101: Engineering Applications of Operations Research (3 credits)
- FSAD 1120: Fashion Design and Visual Thinking (3 credits)
- HADM 1102: Entrepreneurship and Concept Development in the Food and Beverage Industry (3 credits)

Six-week courses

Program dates: June 22–August 2, 2025

- ARCH 1110: Introduction to Architecture: Design Studio (3 credits)
- ARCH 1300: An Introduction to Architecture: Lectures (3 credits)

These two courses make up the Introduction to Architecture Summer Program and must be taken together.

Eligibility Requirements for Summer/Online:

There are no exceptions to the following requirements:

- To attend the online summer program, you must be between 15 and 19 years of age when you start your class.
- To attend the on-campus commuter program, you must be between 16 and 19 years of age when you start your class. You must also live near campus or plan to stay in the Ithaca area with your parent/guardian during your course (on-campus housing is not available to commuter students).
- To attend the residential summer program, you must be between 16 and 18 years of age when you start your class.
- You must have completed your sophomore year of high school (grade 10 or the international equivalent) when you start your class.
- You must have the demonstrated academic ability, maturity, and intellectual curiosity necessary to undertake college-level work.

- You must meet all stated course prerequisites. Before applying, review the instructions for how to select your course and check your course for any specific eligibility requirements.

Cornell University:

https://outreachacademies.engineering.cornell.edu/

CURIE Academy

The **Cornell Engineering High School Outreach Program** proudly offers one-week residential academies for rising juniors and seniors who desire to learn about engineering in the context of an authentic college experience. Our two academies – CURIE and CATALYST – run concurrently during the third week of July each year and are hosted on the Cornell University campus in Ithaca, NY. The Cornell Engineering High School Outreach Program is administered by the Office of Inclusive Excellence.

The **Cornell Engineering High School Outreach Program** is open to students of all identities who meet the eligibility criteria for their respective academy. We strongly encourage all interested students to apply by February 15, 2025!

Apply Now

Key Dates

- Application deadline: February 15, 2025
- Admission decisions released: April 2025
- 2025 Program Dates: July 13–19, 2025

Eligibility

The academies are open to students of all identities who are currently residing and attending high school in the United States or a US territory and who meet the additional eligibility criteria for their respective academy. The Cornell High School Outreach Program is focused on the support and empowerment of traditionally excluded populations in STEM, including (but not limited to) the areas of gender, race, ethnicity, socio-economic status, neurotype and ability. Our academies provide a safe environment to build a community of peers and mentors who empower one another to be confident in their exploration of STEM. We strongly encourage all interested students to apply!

General eligibility requirements

1. Applicants must have a GPA of at least 3.0 on a 4.0 scale, with strong performance in math and science courses.
2. Applicants must be a current high school sophomore or junior at the time of application.
3. Applicants must be on an academic trajectory that will include the following courses prior to graduation:
    - AP Calculus AB, AP Calculus BC, or an equivalent course

- AP Physics or an equivalent course (calculus-based physics, such as AP Physics C, is preferred)
- Honors or AP Chemistry or equivalent courses
- Additional rigorous math, science, computer science, or STEM-related courses

Additional eligibility requirements for CURIE:
Students must meet one or more of the following:

- Experienced educational, socio-cultural, economic, personal, and/or identity-related (e.g., gender) barriers to your academic progress and/or your advancement or ability to advance in a STEM field.
- Demonstrated commitment to address the barriers that prevent participation of women in STEM.
- Demonstrated leadership potential to address the issues of underrepresentation of women in STEM.

CATALYST Academy

Additional eligibility requirements for CURIE:
Students must meet one or more of the following:

- Experienced educational, socio-cultural, economic, personal, and/or identity-related (e.g., gender) barriers to your academic progress and/or your advancement or ability to advance in a STEM field.
- Demonstrated commitment to address the barriers that prevent participation of women in STEM.
- Demonstrated leadership potential to address the issues of underrepresentation of women in STEM.

Cooper Union: Summer STEM Program

https://cooper.edu/engineering/stem/summer

Summer STEM 2025
Applications are now open.
Apply HERE.
Deadline to apply: March 26, 2025, 5:00 pm EST.

Summer STEM is an opportunity to try engineering for the first time or to dive deeper into engineering teamwork. Each 3- or 6-week class covers college-level topics and activities completed by The Cooper Union undergraduates in their first or second year or explores student and faculty research projects. Current high school students in grades 9, 10, and 11 can apply. This selective program encourages all curious, compassionate, and college-interested students to apply regardless of prior experience.

Summer STEM 2025 occurs July 7-August 14, 2025, Monday - Thursday, 9:00am-3:00pm. All of our classes will be held in person on our campus located at 41 Cooper Square, New York, New York.

SUMMER STEM 2025 COURSE DESCRIPTIONS

6-Week Courses

9th, 10th, and 11th grade students are invited to apply to these courses

July 7 - August 14, 2025

- **Embedded Systems: C-ing Beyond Arduino**
- **Design and Drawing for Engineering**
- **Exploring NYC Through Data Visualization**
- **3D Design & Fabrication: From Concept to Creation**
- **Circular Design: Engineering Sustainability for a Greener Future**
- **Explorations in Interdisciplinary Art: Developing Sculpture and Generative Image with Arduino, Touch Designer, and More**
- **The Origin of Patterns: Science, Math, and Art**
- **Computational Physics**

2025 Tuition & Fees

- Tuition for Summer 2025: $3,950 for our 6-week courses; $1,950 for our 3-week course
- Financial Aid
  - The overarching goal of this program is to offer an engineering and design experience to all students regardless of their ability to pay. Full and half tuition scholarships and application fee waivers are available. The amount of this aid is need-based and assessed based on financial documentation and family circumstance. Priority is given to students from New York City.
  - To request an application fee waiver: 1) Complete the main application and financial aid form; 2) email stem@cooper.edu to request a fee waiver; 3) After you receive an email confirmation for your fee waiver, submit your application.

Stony Brook University: Simons Summer Research Program

https://www.stonybrook.edu/simons/

2025 Simons Summer Research Program

The Simons Summer Research Program gives academically talented, motivated high school students the opportunity to engage in hands-on research in science, math or engineering at Stony Brook University. Simons Fellows work with distinguished faculty mentors, learn laboratory techniques and tools, become part of active research teams, and experience life at a research university.

Program Dates: June 30, 2025 - August 8, 2025

Program Information

- Established in 1984 as an outreach program for local high school students, the Simons Summer Research program now attracts applicants from all across the country to the Stony Brook campus: Simons Fellows are matched with Stony Brook faculty mentors, join a research group or team, and assume responsibility for a project. The Simons

Fellows conclude their apprenticeship by producing a written research abstract and a research poster.

- In addition to learning valuable techniques and experiencing life at a major research university, Simons Fellows attend weekly faculty research talks and participate in special workshops, tours and events. At the closing poster symposium, students are presented with a stipend award.

- *Students apply while they are currently in their junior year of high school (11th grade)- and participate in the program in the summer before senior year.

Eligibility

- Students interested in science who have demonstrated independence, creativity and an aptitude for doing hands-on work are especially encouraged to apply.

- Applicants must currently be in their junior year (11th grade) of high school at the time of applying; must be US citizens and/or permanent residents; and must be at least 16 years of age by the start of the program.
- (no exceptions)

Application Guidelines
Closely read the guidelines as there is a School Nomination Requirement.

PENNSYLVANIA

Bucknell University: Engineering Camp

https://www.bucknell.edu/admissions-aid/plan-visit/camps-conferences-visit-programs/engineering-camp

Engineering Camp 2025

Engineering Camp

- Explore engineering and kick-start your college experience by experimenting in real research labs with Bucknell's world-class faculty. Engineering Camp is an academically challenging, hands-on introduction to engineering held on Bucknell's campus during the summer.
- You'll discover the many different areas where engineers apply their skills, study the latest technologies that shape our world and learn how the scientific phenomena you've studied in school are applied to solve engineering problems.

Dates

Sunday, June 22 to Friday, June 27, 2025

- Sunday, June 22
  - 3 p.m.: Drop-off students, camp begins
- Friday, June 27

- Noon: Pick-up students, camp concludes

Eligibility

Engineering Camp welcomes students who will have completed grades seven through 11 by the summer of the camp. Campers are placed in age-appropriate sections. Acceptance is subject to a review of teacher and guidance counselor recommendations.

How to Apply

- **Step 1: Complete the online Application form.**
- **Step 2: Have one teacher and your guidance counselor complete the Teacher Recommendation and Counselor Approval forms.**

Tuition & Aid

- Tuition for a single residential student: $1,500
- Tuition for a single commuter/day camp student: $1,000
- Tuition includes instruction and related course materials, laboratory and classroom supplies, housing and all meals.
- Need-based financial assistance is available for those who qualify. Contact engineering.camp@bucknell.edu for more information about financial aid.

Bucknell University: Bucknell Academy Summer Experience

https://www.bucknell.edu/admissions-aid/plan-visit/camps-conferences-visit-programs/bucknell-academy-summer-experience

Application is not yet open for Summer 2025 as of 2/4/2025

Bucknell Academy Summer Experience

What is BASE?

At BASE, the Bucknell Academy Summer Experience, rising high school juniors and seniors spend a week living like a college student.

You'll stay in our residence halls, attend classes taught by Bucknell professors and develop problem-solving skills designed to help you make an impact on the world.

BASE participants join Bucknell faculty and students to find innovative solutions to pressing issues. Perhaps you'll team up with environmental engineers and global managers to create better technology for clean water. Or maybe you'll collaborate with performing artists and biomedical engineers to reimagine prosthetics used by actors or musicians.

Reach into your imagination and solve problems in innovative ways. It all starts at Bucknell.

Applications must be submitted by March 16, 2024.

How much does it cost? The fee is $1,500, which includes housing, meals and learning materials.

Program Dates: June 23–28, 2024

Carnegie Mellon University: Pre-College Programs

https://www.cmu.edu/pre-college/index.html

2025 Carnegie Mellon's Pre-College Programs

Carnegie Mellon's Pre-College Programs mirrors the undergraduate experience, giving rising juniors and seniors the opportunity to explore their interests and passions while receiving instruction from acclaimed Carnegie Mellon faculty and staff.

We provide a holistic and robust student experience that includes academic and personal development both inside and outside of the classroom in order to prepare students for the future. Live and learn in a college setting that will challenge you to discover your best self.

Application Due Dates:

- Early Decision Applications: February 1, 2025 / February 28, 2025
- Regular Decision Applications: March 1, 2025 / Decision: April 11, 2025
- AI Scholars, CS Scholars, and SAMS Applications: March 1, 2025 / Decision: April 4, 2025
- Scholarship Applications: March 1, 2025 / Decision: April 4, 2025

Pre-College Cost and Scholarships

- Costs are class specific.

Age: Students must be 16 years of age by June 21, 2025 to participate in Pre-College Programs.

Grade: You must be in high school between 10th and 11th grade or between 11th and 12th grade during the summer of 2025. When filling out the application, you should be in 10th or 11th grade.

Pre-College Programs Application

- AI Scholars
- Architecture
- Art
- Computational Biology
- CS Scholars
- Design
- Drama
- Music
- National High School Game Academy
- Summer Academy for Math & Science
- Summer Session
- Writing & Culture

RHODE ISLAND

Brown University

https://precollege.brown.edu/programs/summerbrown

Pre-college Programs - 2025

Program Snapshot

Who: Students completing grades 9 to 12, ages 14 to 18 by June 15, 2025
What: Choose from over 230 courses in multiple 1-, 2- and 3- week on-campus and 5 week hybrid (2 weeks online and 3 weeks on campus) sessions
When: June 16 to July 25, 2025
Where: Brown University campus in Providence, Rhode Island

Summer 2025 Application Dates and Deadlines

For more information on how admission decisions are released, check out our admission decision information.

- Application Opens: Wednesday, January 15, 2025
- Admissions Decisions: Rolling admission decisions will be sent to students as they become available beginning on Monday, January 20, 2025
- Course Enrollment Opens: Tuesday, January 21, 2025
- Priority Enrollment Deadline for BEE and BELL: Monday, March 31 or sooner if programs reach capacity. All students enrolled by March 31 will attend a welcome meeting with program directors.
- Application Fee Increases to $100: Monday, April 6, 2025
- Application Deadline: Friday, May 9, 2025
- Final Admission Decisions Sent: Friday, May 23, 2025

To begin an application:

1. Create your account on the Student Portal. Be sure to create only one account per applicant. All applications are submitted electronically within your student portal.
2. Complete your application form in your student portal. More information about the specific components of our application can be found within the Application Checklist.
3. Please monitor your student portal once you have submitted your application as you may receive communications if any components are missing or incomplete. Admissions decisions will also be posted to your student portal.
   Please note that applications will not be reviewed until all requirements are fulfilled. Check if your application is complete by using our handy application checklist.

CONNECTICUT

University of Connecticut

https://precollege-summer.uconn.edu/

UConn Pre-College Summer – 2025

UConn Pre-College Summer (PCS) is a comprehensive and immersive summer experience designed for high school students seeking to gain college-level academic experience, live on a college campus, and prepare for the next steps in their academic journey. Offering a wide-range of courses taught by distinguished faculty members and industry professionals, UConn PCS enables students to explore various academic subjects and in some cases, to earn college credits that may be transferable to future institutions. Courses are offered in a variety of fields, including STEM, humanities, social sciences, and the arts. Throughout the program, high school students have the opportunity to attend workshops, seminars, and guest speaker events focused on leadership, time management, study skills, and college readiness.

Sessions:

Credit Session: June 16, 2025 - June 28, 2025
Session 1: June 22, 2025 - June 28, 2025
Session 2: July 6, 2025 - July 12, 2025
Session 3: July 13, 2025 - July 19, 2025
Session 4: July 20, 2025 - July 26, 2025

Explore Summer Courses

AH 2001: Medical Terminology; Animation Studio; Biomedical Engineering; Branding & Merchandise: Logo Design and Screenprinting; Chemistry; Climate Science; Digital Animation & Motion Graphics; Earth and Environmental Sciences; Introduction to Equine Science and Horsemanship; Marine Biology and Conservation; Messy Endings: Writing, Film, and Creativity; Multimedia Journalism; Nutrition: Food Science and Technology; Nutrition: Human Nutrition and Health; Pharmacy: Being a Medication Expert & Beyond; Pharmacy: Medicinal Chemistry; Pre-Law; Pre-Med: Explore the Medical Field; Pre-Med: Human Anatomy & Physiology; Pre-Med: Musculoskeletal Injury and Pathology; Pre-Vet: Marine Animal Health & Vet Science; Sports Medicine; STARTALK: Chinese

Dates & Deadlines

December: Application opens
April 1: Submit application by April 1 to receive the $100 Early Bird discount at the time of course registration
June 1: Deadline to submit final payment of program cost fees and all required forms
June 11: Application priority deadline
Applications may continue to be submitted based on course availability and will be reviewed on a case-by-case- basis. Payment and forms must be submitted at the time of enrollment

Information on Costs, Fees, & Discounts - 2025 Program Costs:
https://precollege-summer.uconn.edu/costs-fees-discounts/

Apply HERE

Rockefeller University – Summer Science Research Program

https://www.rockefeller.edu/outreach/ssrp/

Summer Science Research Program (SSRP) 2025

Applications for the 2025 SSRP opened Monday, October 14, 2024. **Applications are due on Friday, January 3, 2025** at 11:59pm Eastern Time. Letters of recommendation are due by Monday, January 6, 2025 at 11:59pm Eastern Time.

The Summer Science Research Program (SSRP) is a team-based mentored research program for high school juniors and seniors that takes place during the summer.

SSRP 2025: Program at a Glance

- Monday, June 23 – Thursday, August 7, 2025
- Requires full-time attendance — approximately 35 hours per week during normal business hours
- Applicants must be current high school juniors or seniors
- Accepted students must be age 16+ at program start and must commit to attending the entire program. There are no exceptions to these rules.

University of Maryland Eastern Shore

https://wwwcp.umes.edu/geosciences/

No information for summer 2025 posted as of 2/7/2025.

Geosciences Bridge Program - Explore Geosciences

The Geosciences Bridge Program offers a 6-week paid internship for students planning to pursue careers in the geosciences. The program includes lectures, field trips, hands-on activities, two for-credit college courses, housing, meals, travel to and from the University of Maryland Eastern Shore (UMES), and a stipend.

Eligibility

To be eligible, participants must be graduating high school seniors, US Citizens or Permanent Residents and should plan to pursue a bachelor's degree in a geoscience discipline, such as: atmospheric science, engineering (civil, electrical, environmental, ocean), environmental science, geography, marine biology, marine chemistry/biogeochemistry, marine geology, marine science, meteorology, physical oceanography, remote sensing/GIS, etc.

NATIONAL PROGRAMS

Energymag

https://energymag.net/internships/

Internships

EnergyMag offers a limited number of virtual internships to both college and high school students who want to make the world a better place by increasing the share of renewable energy in the world, learn about the energy storage industry, and get work experience in an exciting and fast-moving environment.

The application form is at the bottom of this page, but please read the rest of the page CAREFULLY.

We are not a for-profit institution, and internships are unpaid.

The Summer Science Program

http://www.summerscience.org/home/index.php

2025

The Summer Science Program offers teens an exhilarating and inspiring immersion into hands-on experimental science. Working in teams of three, 36 or 24 participants and 8 faculty form a supportive "living and learning community" over 39 days. Each team completes a real research project, taking and analyzing original data. Afterward, they join a worldwide network of 3,700+ alumni of all ages. In 2024 we operated 12 programs:

- five in Astrophysics: research in near-earth asteroid orbit determination at New Mexico State Univ., Univ. of Colorado Boulder, Georgia College & State Univ., and Univ. of North Carolina Chapel Hill.
- three in Biochemistry: research in fungal crop pathogens at Purdue Univ. and Indiana Univ.
- three in Genomics: research in evolution of antibiotic resistance at Indiana Univ., Georgetown Univ., and Purdue Univ.
- one in Synthetic Chemistry: Creation of novel macrocyclic compounds at Southwestern Oklahoma State Univ.

The Summer Science Program is an independent nonprofit, dedicated to creating a transformational experience for our participants. Many alumni call it "the educational experience of a lifetime."

Is Summer Science Program For You?

Summer Science Program is open to current high school juniors who have completed the pre-requisites by summer, and will be at least 15 years old, but not yet 19, during the program. (Not a junior yet? We can remind you later.)

Key Dates for 2025 Programs

December 12th, 2024: Applications open.

February 21st, 2025: Deadline for domestic applications.
Mid-April 2025: Domestic admissions decisions released.
June 2025: Programs begin mid-late June.

Click here for specific 2025 Program Dates

Prerequisites
Applications are open each winter to current high school juniors who have completed the prerequisites and will be at least 15 years old, but not yet 19, during program operation. Current freshmen, sophomores, and seniors are not eligible.

To meet the prerequisite, a course must be taken for credit and a grade, and completed by June. We do NOT require AP or advanced level classes. Self-study does not qualify. If you have not taken the required classes, you are not eligible to apply.

Research in: Coursework Prerequisites (completed or in progress)
Astrophysics: physics (any level high school physics) + precalculus (or if you don't have physics, calculus)
Biochemistry: biology + chemistry + strong algebra skills
Genomics: biology + Algebra II
Synthetic Chemistry: chemistry + strong algebra skills

Cost:
An applicant with family income:

- under about $75,000 will likely qualify for fully discounted fee (Summer Science Program is free) and travel expenses
- under about $140,000 will likely qualify for a partially discounted fee
- over $140,000 may qualify for a partially discounted fee, depending on individual circumstances
- In other words, the program fee is scaled to what each family can afford. No one pays more than the program fee of $9,800 (2025) which represents our cost per participant to operate the program (~$14,600) minus subsidized support provided by donations.

Apply to SSP HERE

National Student Leadership Conference (NSLC) on Engineering Summer Program

https://www.nslcleaders.org/

Pre-college summer programs for middle and high school students
Multiple Locations
The National Student Leadership Conference provides an immersive pre-college experience that prepares students for life beyond middle and high school, allowing them to study in university classrooms, learn to navigate a campus, and experience living with roommates. Students are able to explore a career concentration they are interested in before going to

college and declaring a major. Each NSLC program also contains a leadership curriculum designed to teach skills that can apply to all areas of life.

For high school programs, students must be between the ages of 14-18 and have completed at least one year of high school. Students may attend NSLC through the summer following high school graduation.

Our Programs:

Aerospace
Animation
Architecture
Artificial Intelligence
Biotechnology
Business & Entrepreneurship
Cybersecurity
Engineering
Environmental Science & Sustainability
Fashion Management & Design
Film Intensive
Film Production & Screenwriting
Forensic Science
Game Design
Graphic Design
Intelligence & National Security
Interior Design
International Business & Finance
International Diplomacy
International Law & Politics
Journalism
Law & Advocacy
Leadership & Service
Marine Biology
Medicine & Health Care
Music Industry & Production
Nursing
Political Action & Public Policy
Psychology & Neuroscience
Sports Management
Theater
Veterinary Medicine

Review each program for Cost and Location.

NASA INTERN

https://www.nasa.gov/learning-resources/internship-programs/#info-intern-0

NASA Internship Programs – 2025

NASA's internship programs provide training, mentoring, and career development opportunities while working with the best science, engineering, financial, information technology and business minds in the world.

Internship

- **NASA's Office of STEM Engagement (OSTEM) paid internships allow high school and college-level students to contribute to the agency's mission to advance science, technology, aeronautics, and space exploration.**

- OSTEM internships offer students an opportunity to gain practical work experience while working side-by-side with mentors who are research scientists, engineers, and individuals from many other professions. Internships may be full time or part

time on a NASA center or facility.

Join our NASA team and gain valuable on-the-job experience, build your resume, and strengthen your career readiness. We offer three sessions annually, so visit our website often for opportunities.

2025 Internship Application Deadlines:
Summer 2025: Feb. 28, 2025
Fall 2025: May 16, 2025

Explore and Apply for Opportunities HERE

U.S. Naval Research Laboratory
The Department of the Navy's Corporate Laboratory

https://www.nrl.navy.mil/Careers/Students/SEAP-Apprentice-Program/

Science and Engineering Apprentice Program (SEAP) - 2025

Application Closed for Summer 2025 (Applications Open August 1st- November 1st, 2024)

NRL participates in the Science and Engineering Apprentice Program (SEAP) during the summer in cooperation with Saxman One and as part of the Department of Defense SEAP. This program offers select high school students a unique opportunity to explore and pursue careers in science and technology by opening to them NRL's vast, varied resources and by allowing students to spend eight weeks working full-time on unclassified tasks. Under the direction of NRL scientists and engineers, students actively engage in research problems, planning sessions, special program seminars, and writing and presentation of a final research paper.

This program is administered through NRL's Human Resources Office, Employee Development and Management Branch. The NRL SEAP Coordinator can be reached at (202) 767-8324 or (202) 767-6736.

Eligibility Requirement

Must be in high school grades 9-12, and at least 15 years of age.

- US Citizenship
- Must be recommended by a high school official (guidance counselor, math, or science teacher)

Selection

Students will be selected on the basis of grades, science and mathematics courses taken, scores on national standardized tests, areas of interest, teacher recommendations and personal student statement.

Appointment

High school students receive a $3,500 Academic Award, returning students receive $4,000 from the Saxman One. Transportation allowances and temporary housing are NOT provided.

Application

Student application, information on applying and deadlines can be obtained by the following methods:

- Apply on-line at https://navalsteminterns.us/seap/index.html.
- Program information can be viewed at any time at this site; however, you will only be able to access the application form during the application period.
- You may sign up for their email distribution list for upcoming program dates via the website.

Society of American Military Engineers Camps

https://www.same.org/camps/

Apply to SAME's 2025 STEM/Engineering & Construction Camps

SAME Camps Program

- Start Your STEM Journey Today! SAME's STEM/Engineering & Construction Camps offer high school students interested in a highly unique STEM experience the chance to spend a week at a military base learning engineering, construction and design, while developing leadership skills and discovering the potential of a career in STEM.
- Led by SAME professionals and other volunteers from the military and engineering community, for more than 20 years the SAME Camps Program has focused on practical, project-based learning that provides hands-on opportunities to explore STEM fields and to chart a course for future education and career opportunities.
- SAME camps feature an impressive record of producing thousands of engineers and STEM leaders. They provide a rigorous experience for students interested in exploring STEM skills and careers. During the week, campers gain a sense of what it takes to become a STEM professional and learn what options exist to explore that interest from high school to college and beyond. Each camp has a unique curriculum that features hands-on activities conducted in competitive environments promoting teamwork, leadership, project management, and problem-solving.

Information on 2025 SAME Camps

Army Camp (Vicksburg, Miss.) June 8-14
Navy Camp (Jacksonville) June 22-28
Air Force Academy Camp (Colorado Springs, Colo) June 22-28
Marine Corps Camp (Camp Lejeune, N.C.) June 22-28
Navy Camp (Port Hueneme, Calif.) July 20-26

Application Criteria

- Rising Juniors and Seniors will be given first preference in the selection process, but we still encourage rising Sophomores to submit an application! (at least 15 years of age at time of camp)
- On a track that will provide a basis for attending an accredited engineering college or university (such as taking appropriate STEM courses).
- Minimum GPA of 3.2 (not required but highly recommended)
- Demonstrated leadership characteristics through participation in extracurricular activities, sports, and/or community activities.
- Prepared to participate in various physical activities.
- U.S. citizen, and able to provide proof of medical insurance.

Costs & Registration

- Registration fee for the camp is $100 or $800 (depending on the camp). This includes lodging, meals, materials, instruction, and mentoring. Once selected to attend, campers must submit half the registration fee to hold their spot. Sponsorships for the other half of the amount (or more) may be available from SAME Posts. Sponsorships are not absolutely guaranteed and if not sponsored by a Post, the camper could be responsible for all camp fees and transportation.

Apply HERE

National Institutes of Health (NIH)

U.S. Department of Health and Human Services
https://www.training.nih.gov/research-training/hs/hs-sip/

2025 Research Training: HS-SIP is discontinued
The NIH Intramural Program has paused the recruitment of IRTAs, CRTAs, and Visiting Fellows in all training programs pending guidance from Health and Human Services. Check back daily for updates.

2024 SUMMER INTERNSHIP PROGRAM IN BIOMEDICAL RESEARCH (SIP)
An opportunity for high school students to spend a summer working in the Intramural Research Program at the NIH.

About this program
This program is for 11th and 12th graders interested in exploring careers in research and healthcare. With the exception of the HiSTEP program, these are full-time research positions within one of the NIH Institutes and Centers (IC) in the NIH Intramural Research Program. Research groups are located on all NIH campuses, including the main campus in Bethesda, MD.

We offer research opportunities in biomedical, behavioral, and social sciences with opportunities to explore basic, translational, and clinical research. Students interested in biology, engineering, epidemiology, psychology, mathematics, chemistry, pharmaceutical sciences, nursing, physics, computer science, bioinformatics, and other health-related fields

are invited to apply. Summer interns may not work in administrative offices or outside of the NIH IRP.

HS-SIP cohort programs

Our goal is to support diverse students to enter careers in research and healthcare. To help us achieve this, we sponsor two cohort programs for high school students. Interns in these cohort programs have access to all resources of the broader HS-SIP program and also participate in orientation, leadership, professional development, and well-being programs as part of a learning community. The curriculum of each cohort program is tailored to the educational needs of the groups and includes a focus on science, professional, and personal skill development. The OITE sponsors two HS-SIP cohort experiences:

- HiSTEP for current high school juniors who will be rising 12th graders in the summer; this is a part-time program and interns do not work in NIH research groups.
- HiSTEP 2.0 for current high school seniors; this is a full-time program and interns are placed in an NIH research group.

Eligibility criteria

To apply for the NIH HS-SIP, and HS-SIP cohort programs, you must be a U.S. citizen or permanent resident. In addition, you must:

- Be 17 years of age or older on June 15, 2024.
- Be enrolled in high school as a junior or senior when you submit your application. U.S. citizens may apply if they are enrolled at least half-time in high school. U.S. permanent residents must be enrolled in a high school in the U.S. to be eligible.
- If you are under 18 years old by June 15, live within 40 miles of the NIH campus on which you will intern when you submit your application.

Opening and closing dates: The HS-SIP application is currently open.

- The HS-SIP application closes on Friday, February 16, 2024 at noon ET.
- Reference letters are due before Friday, February 23, 2024 at noon ET.

IEEE TryEngineering Summer Institute

https://tryengineeringinstitute.ieee.org/

2025 Engineering Summer Camp

Our Engineering Summer Camp Goal

The goal of our 2025 engineering camp is to spark enthusiasm in engineering and technology in the next generation of problem-solvers and difference-makers, and position these innovators for long-term success in academics and in life.

How do we do it?

Organized in nine day sessions each summer, on university campuses across the USA, the IEEE TryEngineering Summer Institute unites students from around the world -- co-ed, between 13-17 years old -- to:

- engage in hands-on design challenges
- experience the work firsthand with behind-the-scenes tours with real-life engineers
- discover not just what's happening today, but what's coming tomorrow, through conversations with renowned guest speakers and incredible Summer Institute counselors
- create a future of possibility that is fully realized and present for each and every student
- build skills and conceptual knowledge through hands-on work doing design challenges and classwork building and creating projects of increasing difficulty
- each student is issued a program-owned laptop for each student to use for the duration of the program at a 1:1 ratio
  Give us nine days at our engineering summer camp, and we'll give you a new definition of what it means to be an engineer.

2025 Engineering Dates at Four Unique Locations:

- **University of Pennsylvania**
  - Session 1: June 29th - July 8th
  - Session 2: July 11th - July 20
- **Rice University**
  - Session 1: June 29th - July 8th
  - Session 2: July 11th - July 20th
- **University of San Diego**
  - Session 1: June 12th -June 20th
  - Session 2: June 24th - July 3rd
- **Columbia University**
  - Session 1: July 12th- July 20th
  - Session 2: July 24th - August 2nd

Enrollment Requirements to attend our engineering summer camp:

- Students entering grades 9-12 in the fall, or students whose ages are ages 13-17 during the period for which they attend the program
- No letters of recommendation, transcripts, essays or references required
- All levels of students are accepted, whether you have a little or a lot of engineering and technology experience

Click HERE for detailed information on TryEngineering Summer Institute Tuition and Enrollment

Institute for Broadening Participation (IBP): PathwaystoScience

https://pathwaystoscience.org/K12.aspx

Take time to research this website – links have not been researched or vetted.

Programs for high school students

Over 50 programs, including summer science and research programs, internships, and other

STEM exposure programs. Programs are either tuition-free or provide scholarships. Some of the programs mentioned here are listed elsewhere on these pages.

Even more paid internships for high school level students

Rochester Institute of Technology: Co-op/Internships and Summer Research Opportunities for High School Students
http://people.rit.edu/~gtfsbi/Symp/highschool.htm

A listing of opportunities.
NOTE: Not all links are functioning or current.

Math Camps

There are a wide variety of summer programs available for talented high school math students. Review each site closely for more detailed information.

- CyberMath Academy - CyberMath Academy offers a Summer Math Camp in Boston, MA. It is a selective summer program for students who would like to sharpen their math skills in the inspiring and motivating atmosphere of Harvard University.

- MathCamp - A joint venture between the USA and Canada, this 5-week summer program rotates to a different college campus each year.

- Ross Mathematics Program - an intensive summer experience designed to encourage motivated pre-college students to explore mathematics. During those six weeks, students are immersed in a world of mathematical discovery.

- HCSSiM (Hampshire College Summer Studies in Mathematics) - an intensive six-week residential program for enthusiastic students. Working in small classes and individually, participants will actively engage in the process of mathematical thought.

- MathILy (serious Mathematics Infused with Levity) - Do you want to explore and create mathematics? Consider MathILy, an intensive residential summer program that emphasizes mathematics that is pure but applicable and has a core curriculum of discrete mathematics.

- Prove it! Math Academy - Prove it! Math Academy is an advanced residential summer math camp at Colorado State University for talented students 14 to 18 years old. This camp serves as a bridge between programs/contests that emphasize computational abilities and those that expect students to be well-versed in proof writing

I STOPPED UPDATING HERE

National Park Service

https://www.nps.gov/subjects/youthprograms/public-land-corps-nonprofit-organizations.htm

Youth & Young Adult Programs

Public Land Corps Nonprofit Organizations – a list of state organizations with youth programs.

Nationwide
Student Conservation Association
Alaska
Serve Alaska Youth Corps
Arizona
Arizona Conservation Corps
Southwest Conservation Corps
California
California Conservation Corps
Conservation Corps North Bay
Los Angeles Conservation Corps
Colorado
Southwest Conservation Corps
Western Colorado Conservation Corps
Rocky Mountain Youth Corps
The Geological Society of America
Idaho
Northwest Youth Corps
Maine
Maine Conservation Corps
Maryland
Civic Works
Minnesota
Minnesota Conservation Corps
Nevada
Nevada Conservation Corps
Oregon
Northwest Youth Corps
Texas
American Youthworks
Utah
Utah Conservation Corps
Vermont
Vermont Youth Conservation Corps
Washington
EarthCorps
Washington Conservation Corps, Department of Ecology
West Virginia

Citizens Conservation Corps of West Virginia

U.S. DEPARTMENT OF AGRICULTURE: Forest Service

https://www.fs.usda.gov/working-with-us/careers/pathways-internships

Student Internships Pathways Program

This program is for high school or college students currently enrolled in a qualifying educational program or institution and who are interested in a paid internship while completing their education.

We hire eligible students on a temporary basis for up to 1 year or for an indefinite period. You may work full-time or part-time and may be eligible to convert into a permanent position.

Eligibility Requirements

Current students in an accredited high school, college, including 4-year colleges, universities, community colleges, and junior colleges; professional, technical, vocational, and trade school; advanced degree programs; or other qualifying educational institution pursuing a qualifying degree or certificate.

STEAM SCHOLARSHIPS:

RESPEC FOUNDATION

https://www.respec.com/foundation/

SCHOLARSHIPS

We are on a mission to pave the way for aspiring students wanting to enter STEM careers. How do we accomplish this? Through endowed scholarship funds that let students pursue their dreams in STEM-based education. With contributions from RESPEC and our employee-owners, our scholarship fund will work to open the doors for college students.

Investing in academic pursuits alleviates barriers, allowing students to focus on learning, growing, and ultimately becoming catalysts for change in STEM.

RESPEC STEM Scholarship: Five $3,000 Awards

The applicant must be a graduating high school senior or enrolled undergraduate in an accredited post-secondary institution in the year of the scholarship award.

Download Scholarship Application

Programs Reviewed and NOT Applicable

- California State Summer School for Mathematics and Science (COSMOS) – California residents only

- The ESTEEM Research Mentoring Program (Engineering Science and Technology to Energize and Expand Young Minds) and the Summer Engineering Research (SER) - The 2024 Summer Program – Commuter Program Only

- New York University: Applied Research Innovations in Science and Engineering (ARISE) – Students living in New York City completing 10th or 11th grade in June 2024

- University of Illinois, Urbana-Champaign: High School Summer STEMM Worldwide Research Program, Youth Scholars – The program is open to students from Illinois, Indiana, Kentucky, Michigan, Missouri, Iowa, and Wisconsin.

- Princeton University: Laboratory Learning Program – research experience in the sciences or engineering for New Jersey high school students.

Center For Bright Kids

https://centerforbrightkids.org/summer-programs/

The Center for Bright Kids has no information on summer 2025, 2024 programs and did not be offer summer 2023 programs.

University of Wyoming: Summer Research Apprentice Program (SRAP)

http://www.uwyo.edu/epscor/srap/

Checked 2/2025: Unclear if program has been available since 2022 as the information has not been updated since then.

2/2025: This additional material shared with me by JoAllen Gehde, forwarded from Whitney Talmage, Owner, Essential College Consulting.

The links and information have not be checked or vetted for 2025.

Summer Programs - STEM - and Research and Competitions

Last updated January 2023 *Crowdsourced through IECA recommendations/Grey Guidance Research*

- Research Science Institute- Center for Excellence in Education* - free, summer science & engineering program at MIT that combines on-campus course work in scientific theory with off-campus work in science and technology research. Very competitive, only 100 students.

- Summer Science Program* - Working in teams of three, 36 participants and 7 faculty form a supportive "living and learning community" over 39 days. Each team completes a real research project, taking and analyzing original data. 2023 programs include: three in Astrophysics: research in near-earth asteroid orbit determination at New Mexico State; two in Biochemistry: research in fungal crop pathogens at Purdue Univ. and Indiana Univ., and one in Genomics: research in evolution of antibiotic resistance, at Indiana Univ. Very competitive, may need physics and calc to apply. Apps due Mar 3rd.

- University of Chicago* - Research in Biological Science (RIBS) program - 4 week program, hands on research project. For rising rising juniors and seniors. Very competitive.

- Stanford SIMR* - The Stanford Institutes of Medicine Summer Research Program (SIMR) is an eight-week program in which high school students from diverse backgrounds are invited to perform basic research with Stanford faculty, postdoctoral fellows, students and researchers on a medically-oriented project. The goals of the program include increasing interest in biological sciences and medicine in high school students, helping students to understand how scientific research is performed, and increasing diversity of students and researchers in the sciences. **Heavily favors Bay Area students! Competitive.**

- Beaver Works Summer Institute* - four-week program at MIT that "teaches STEM skills through project-based, workshop-style courses." The BWSI Program consists of online (prerequisite) courses and summer synchronous courses that build upon one or more of these prerequisites. The online prereq courses are independent study,and your progress and grades are considered to be part of the summer program, so it is important to show progress by the summer institute application deadline 3/31. The BWSI was traditionally in person but now primarily remote though some classes will be in person in 2023. See the **Summer 2023 Brochure** that explains the summer institute class options. See additional guidelines here for registering. Students who are registered for online prerequisite. More FAQs here. Very competitive.

- PROMYS* - 6-week long residential intensive math program focusing on the study of number theory. Held at Boston University. Competitive and detailed application including a problem set (admits about 60 first year students and 20 returning students/yr). Cost = $6,000 but free to students with family income $80K or less. Strongly encourages students to apply who are female, Black, Latinx or from other groups underrepresented in STEM.

- Boston University RISE program* - six weeks at BU conducting university laboratory research. RISE offers two tracks: Internship and Practicum**. Competitive.**

- Lincoln Lab (LL) RISE at MIT * - 2 week summer workshop teaching students how to build small radar systems, typically held the end of July. In 2023, the workshop will be held July 9 – July 22. Students build a Doppler and range radar by using creative problem-solving strategies, working with scientists and engineers. Tuition free. Competitive. Students from underrepresented and disadvantaged groups strongly encouraged to apply. Very Competitive. App due early March.

- UC COSMOS*- CA State Summer School for Math and Science- intensive four-week summer residential program in STEM subjects, working with renowned faculty, researchers, and scientists in state-of-the-art facilities while exploring advanced STEM topics far beyond the courses usually offered in California high schools; hands on research. Students apply to ONE

of the four UC COSMOS campuses — UC Davis, UC Irvine, UC San Diego, and UC Santa Cruz. Apps close early February. Very competitive.

- Summer Academy for Math and Science (SAMS) at Carnegie Mellon*- 5 week in person program with classroom instruction, through hands-on projects, and sustained engagement with faculty and skilled staff mentors. Designed for students from underrepresented communities. Competitive.

- Science Intership Program (SIP) at UC Santa Cruz - (10 week) research internship program for high school students in STEM fields. UCSC faculty, graduate students, and post-doctoral researchers provide one-on-one mentoring; research projects are *real* in that they are *not* made up just for the high-school students; instead, students are inserted into existing research projects at UCSC. But the nature of projects varies greatly and some are more competitive than others, and student indicates areas of interest on app. Some projects are fully remote. Very competitive, requires LOR, apps due March 31st.

- UC Irvine Summer Youth Science Fellowship Program* - UCI Cancer Research Institute- Six-week program focused on laboratory-based cancer research. The goal of this free program is to encourage students to consider a career in cancer research. Students spend over 30 hours in a lab, complete a research project, and present their work to UCI faculty. Open to rising junior/seniors attending high schools in Orange County, CA only. Subsidized transportation available. Competitive.

- Secondary Student Training Program*- at Univ of Iowa, online and in person options, 5 week program (late June -late July). Complete research under the mentorship faculty. Many different areas of research possible. App due mid-February. Competitive.

- Other UC Irvine Summer Programs - links to other programs offered through UCI medical school, including Summer Healthcare Experience, Summer Surgery, and Summer Research programs (Summer research programs are competitive).

- UCI- GIfted and Talented Institute- offers US college credit(s) for independent research and/or applied innovation in fast growth interdisciplinary fields, such as: BEAM (Bio, Engineering, AI & Medicine) and GSET (Game Sci and Entertainment Tech). Admitted students in BEAM are matched with UCI research teams. Programs include 3-4 weeks online classes/ training followed by 2 weeks onsite at UCI (mid July). Expensive but comprehensive.

- Cal Poly SLO - EPIC- Engineering Possibilities in College Summer Program

- UC Santa Barbara UCSB Summer Research Academies - 4 weeks on campus at UCSB (commuter option available), for 9-11th graders, choosing among several STEM-related tracks; develop research topic specific to the track. Student gets 4 UC credits. Competitive, but applications evaluated on a rolling basis, appears less competitive than USB Summer Mentorship.

- UC Santa Barbara (UCSB) Summer Mentorship Program - for high-achieving high school students, interdisciplinary, hands-on, university-level research. Students will be paired up with a mentor (graduate student, postdoc, or faculty) and choose a research project from a large list of disciplines offered by the program each year. Learn research techniques. Session is June 20 - Aug. 4

- Columbia SHAPE- Summer High School Academic Program for Engineers

- Eve & Gene Black Summer Medical Career Program - through the LA Pediatric Society, a 'medical mentorship' program, 2 sessions, 2 weeks each. Apply to the virtual or in person program. Both provide presentations from/interactive sessions professionals in a variety of medical fields; in person is shadowing medical professionals. ***Only open to LA county and adjacent county residents, rising 12th graders (for in person program, some facilities have 18 yo min age requirements).*** App due late February. Competitive.

- Additional LA -centric medical shadowing opportunities and research opportunities - list compiled by the LA Pediatric Society, includes links to several programs including Children's Hospital of LA and City of Hope.

- Summer Research Internship Program- through UC Irvine affiliation- SREI free research program, 5 weeks consisting of three weekly two-hour meetings (Monday, Wednesday and Thursday) where students are exposed to various aspects of research through interactive workshops and talks hosted by distinguished UCI researchers. At the completion of the program, students are expected to compose their very own research proposal based on their interests and present their research proposal in-person at UCI.

- Other Columbia pre-college programs - many options available including immersive in person summer program, online coding academy, in many science disciplines. Some are competitive.

- Penn Summer Academies - three intensive weeks, non-credit academies with deep dive into exploratory research in a specific subject area, including biomedical research, coding, chemistry, experimental physics, mathematics, neuroscience. Led by Penn faculty and long-standing professionals in their field of study with support from graduate and undergraduate teaching assistants. PENN: Summer Engineering Academy at Penn - https://esap.seas.upenn.edu/courses/ and Mathematics Academy | Penn Arts and Sciences High School Programs (upenn.edu).

- Penn Pre-College Programs- both residential and online, earning credit for courses taken alongside of Penn undergrads. Residential- students reside in campus residence halls and are enrolled in on-campus courses alongside Penn undergraduates. Once accepted into the Pre-College Residential Program, students choose one of four challenging curricula including biology.

- US Army High School Apprenticeship Programs (AEOP)

- Michigan Math and Science (Univ of Michigan)-

- Santa Clara Summer Engineering Seminar (SES)- 1 week program as an intro to engineering. Free. It's probably best geared for students who don't know a lot about engineering, are 1st gen/underrepresented, or are younger.

- Smith College - Summer Science and Engineering Program

- Design the Future*- remote, 2 weeks in June - work to design an application that helps people with disabilities: https://www.youdesignthefuture.com/. Collaborative, with a lot of elements of user interaction/user experience - so that can be useful. Design the Future is more software oriented - it's a good entry into UX/UI.

- Blue Stamp Engineering- 6- week in person (Palo Alto, CA) - https://bluestampengineering.com/ - very hands-on, students will do a project to call their own. Blue Stamp is probably a bit more advanced, has a greater scope and depth than Design the Future and is a bit more engineering oriented.

- Johns Hopkins Engineering Innovation Program- There is a virtual option.

- Michigan State University HSHSP* -The Michigan State University High School Honors Science/Engineering/Mathematics Program (HSHSP) is a seven-week, intensive summer research program designed for motivated students from across the United States who wish to gain more experience conducting research while living on the campus of a major research-intensive university. For rising seniors only. More info here. Competitive.

- Simons Summer Research Program*- at Stony Brook University - 7 week program, and students are matched with StonyBrook faculty mentors, join a research group or team, and assume responsibility for a project, produce a written research abstract and a research poster. Competitive.

- Garcia Summer Research Program* - at Stonybrook, intensive 7 week program for gifted high school students which combines formal instruction with independent research; students design original research projects with guidance from Garcia Center faculty, students, and staff. Competitive.

- Summer Program on Applied Rationality and Cognition (SPARC)* - typically held at UC Berkeley or Cal State East Bay, two week program, July, free. “Applied rationality is the practice of using techniques from decision theory, behavioral economics and statistics to form beliefs about the world as accurately as possible and improve mental habits”. SPARC says it “looks for students who are curious and driven to get answers to their questions, or self-reflective and thoughtful, or good at simplifying and solving hard problems”. Admits 30 students from about 250 applications.

- UCLA programs- There are residential and commuter options. summer.ucla.edu/summer-programs/...

- USC STEM summer programs with either residential or commuter plans. https://summerprograms.usc.edu/.

- US Naval Academy Summer Stem - https://www.usna.edu/Admissions/Programs/STEM.php#fndtn-panel1-Attending

- MIT recommends many enrichment opportunities/resources for high school students interested in STEM fields- STEM Enrichment Opportunities collated by MIT
    - MIT Open Coursework - MIT OpenCourseWare is a free and open collection of material from thousands of MIT courses, covering the entire MIT curriculum.
    - MIT recommended

- MIT Women's Technology Program* - rigorous four-week summer academic experience to introduce high school students to engineering through hands-on classes, labs, and team-based projects in the summer after 11th grade, designed for students who have demonstrated their ability to excel at math and science in their high school classes, and who have ***no prior background (or very little)*** in engineering, with few opportunities to explore these fields, from groups historically underrepresented and underserved in engineering, encourage students who will be the first family member to attend college, who come from high schools with limited access to STEM classes and activities, or who are African American, Hispanic, or Native American. Competitive

- Jackson Laboratory Summer Student Program*- for genetics and genome research,available at The Jackson Laboratory in Bar Harbor, Maine and The Jackson Laboratory for Genomic Medicine in Farmington, Connecticut. Competitive. Apply by 2/1.

- Notre Dame Precollege Programs - Two programs (rising seniors only):
    - Summer Scholars is a two-week deep dive into a chosen discipline (choose from a dozen topics), on campus and virtual options. There are two on-campus sessions. Competitive (requires letter of rec, transcript, etc.). Apps due by mid-February. Cost about $4K.
    - ND summer Leadership Seminars* -highly competitive, only accepts 100 students. Ten-day on campus program, three deep dive topics available; only one session in late July, but no cost to student for tuition/housing/meals. Applications due January. ND prefers submission of test scores and that students be in top 10% of their class to apply, with demonstrated leadership.

- University of Notre Dame Engineering Camp-Two-week on campus general intro to the engineering field camp, with two sessions. Run by the Engineering School. This is not part of Summer Scholars program and is less expensive, and fewer requirements to apply i.e. no LOR, no formal transcript. Rising seniors only.

- U. Michigan SEE Camp-

- Georgia Tech :Summer Programs

- Stevens Institute of Technology Pre College Programs

- Brown Pre-college - Brown offers a wide variety of summer courses many of which are appropriate to explore STEM interests, both in person and online, ranging from 1 - 6 weeks.

- Bucknell Engineering Camp

- Engineer Girl

- Tufts

- Boston University

- U. Rochester: https://rochesteronline.precollegeprograms.org/biomedical (This is biomedical engineering, not general

- Syracuse: https://precollege.syr.edu/programs-courses/summer-college-residential/
- Rose Hulman - Operation Catapult at RH
- NSLY at UC Berkeley https://summer.berkeley.edu/about
- A&M Summer Engineering https://engineering.tamu.edu/events/camps.html
- Clark Scholars at Texas Tech* - 7 week intensive research program, only accepts 12 students, very competitive, app due early February.
- University of Illinois Urbana-Champaign https://www.admissions.illinois.edu/visit/summer-programs
- North Carolina State: .https://www.engr.ncsu.edu/theengineeringplace/summerprograms/hs-residential/
- Purdue Summer Classes
- Johns Hopkins: https://www.jhu.edu/academics/summer-programs/
- Worcester Polytechnic Institute: https://www.wpi.edu/academics/pre-collegiate/summer-programs
- UC Davis: https://cosmos-ucop.ucdavis.edu/app/main - *instate students only*
- University of Southern California: https://precollege.usc.edu/summer-programs/
- Tulane: https://summer.tulane.edu/academics
- Auburn: https://auburn.edu/outreach/opce/auburnyouthprograms/index.htm
- Illinois Institute of Technology: https://www.iit.edu/academics/elevate-college-prep
- North Carolina State University: https://emas.ncsu.edu/precollege/programs/high-school-students/
- Clemson: https://www.clemson.edu/summer/summer-scholars/course-schedule.html
- Girls in STEM - EWGIS Research Program* - free, virtual research mentorship summer program. High school students explore STEM fields under the guidance of an expert mentor. Applications due early May.
- Remote options: www.idtech.com/courses/...; and www.idtech.com/courses/....

RESEARCH SPECIFIC - in addition to some of the programs and camps above, many of which include or offer research, additional opportunities are:

- National Institute of Health (NIH) - Summer Research for High School *- summer long research with the NIH. Highly competitive. Apps due Feb. 1st.

- Companies that facilitate research opportunities - these are research programs where you pay to participate. Still, they provide hands on opportunities and mentorship, and potentially publishing research, and can be worthwhile for those looking to get 'hands on' research experience:
    - Polygence Research
    - Lumiere Education
    - Pioneer Academics

- **List of programs that provide research opportunities to high schoolers, by state is** Here. Source: PLOS Computational Biology article

- Army Educational Outreach Program - apprenticeships Spend your summer in a university research lab or in one of the U.S. Army Research Laboratories and Centers through this unique apprenticeship opportunity.

- THINK MIT*- this is not a summer program- takes place during school year…organized by MIT Undergrads, for students who have completed extensive research on the background of a potential research project and are looking for additional guidance. Student submits proposal (science, tech, engineering idea). Apps due 1/1, selections early February, projects completed with guidance and $1,000 budget from MIT THINK.

Research/STEM Competitions

- 12 Competitions To Get Your Students Fired Up About STEM | ISTE
- 12 of the nation's most prestigious science competitions for high school students – Admissions Blog
- APOS - List of Competitions by Discipline- including MATH competitions
- US National Chemistry Olympiad*** -** multi-tiered chemistry competition for high school students. Discord Chemistry Olympiad Discord Server (CODS)
- American Association of Physics Teachers- Physics Olympiad*
- International Direct Evolution Competition
- Santa Clara Valley Science & Engineering Fair - Synopsys Championship *
- Science Fairs - find a fair
- California Science & Engineering Fair
- Genius Olympiad
- International Journal of High School Research*
- Bay Area Science and Engineering Fair - Infinite Possibilities

https://www.summitstemfellowship.org/

Looking for programs which might give high school students an opportunity to do STEM research, and possibly have a paper published. Some of the ones I found through searching this community and other resources are below (not all verified). If your students have participated in any of these, or you know of other STEM / Engineering programs that might involve research, let me know.

* Research Science Institute (RSI) at MIT - Elite research across STEM fields
* Simons Summer Research Program at Stony Brook - Broad scientific research
* Stanford Institutes of Medicine Summer Research Program (SIMR) - Medical research

* UC Davis Young Scholars Program - Natural sciences research
* Clark Scholars Program at Texas Tech - STEM research
* Vanderbilt Research Experience for High School Students (REHSS) - Scientific research
* Pioneer Academics - Online mentored research across disciplines
* Polygence Research Program - One-on-one mentored research
* NASA Internship Programs - Space and aerospace research
* Jackson Laboratory Summer Student Program - Genetics and genomics
* Cold Spring Harbor Laboratory Partners for the Future - Biological research
* Fred Hutchinson Cancer Research Center Summer Program - Cancer research
* NIH Summer Internship Program (SIP) - Biomedical research
* USC Viterbi SHINE Program - Engineering research
* UPenn TREES Program - Environmental science research
* Boston University RISE - Science and engineering research
* Michigan State High School Honors Science Program - Scientific research
* ASPIRE at Johns Hopkins APL - Physics and engineering
* Welch Summer Scholar Program - Scientific research
* UF Student Science Training Program - Medicine and STEM research
* UC Santa Cruz Science Internship Program - Scientific research
* Salk Institute Heithoff-Brody Scholars Program - Biological research
* UPMC Hillman Cancer Center Academy - Cancer research
* Wistar Institute Summer Fellowship Program - Biomedical research
* Texas Space Grant Consortium Program - Space research
* Garcia Center for Polymers Research Program - Materials science

* Purdue Seminar for Top Engineering Prospects - Engineering exploration
* Rose-Hulman Operation Catapult - Engineering and applied sciences
* MIT Beaver Works Summer Institute - Engineering and technology
* University of Arizona Summer Engineering Academy - Engineering fundamentals
* Pacific Northwest National Laboratory (PNNL) Internships - Engineering and scientific research
* University of New Hampshire InterOperability Laboratory (UNH-IOL) HighTech Bound - Technology and engineering
* Seattle Children's Research Institute STEM Internships - Biomedical engineering and research
* Saturday Academy Apprenticeships in Science & Engineering (ASE) - Engineering and STEM
* USC Viterbi SHINE - Engineering research and mentorship
* Washington State University (WSU) SPARK Program - Engineering and technology
* Defense Intelligence Agency Programs - Engineering and technology
* Department of Energy Student Programs - Energy engineering and research
* Naval Research Laboratory Student Volunteers - Engineering and scientific research
* Sandia National Laboratory Internships - Engineering and national security research