SUMMER SPRINGBOARD
Look Inward. Go Upward.

PRE-COLLEGE SUMMER PROGRAM IN BERKELEY

Immerse yourself in a transformative summer experience on the campus of one of the nation's premier universities. Summer Springboard's program, nestled in the heart of the vibrant San Francisco Bay Area, offers middle and high school students the opportunity to explore their passions and dive into subjects ranging from STEM to the arts while fostering intellectual growth and personal development. Join Summer Springboard for an unforgettable summer of learning, discovery, and inspiration.

Save your spot now to avoid the waitlist!

ENROLL NOW!

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summerspringboard.com

A Note from SSB

Look Inward. Go Upward.

Dear Prospective Student and Families,

Welcome to Summer Springboard! We're thrilled you're considering Summer Springboard for your summer plans. As middle or high school students, we understand that your journey to success is complex and deeply personal. At Summer Springboard, we believe in realizing goals through exploration and experience. Joining our program provides you with the opportunity to seek knowledge and insights to make informed decisions about your future beyond high school.

We know students are eager to learn about college life and potential majors or careers. Our team works year-round to ensure your summer program experience is fun, helpful, and purposefully designed to provide you with tools for self-discovery and valuable insights for your future.

Summer Springboard programs offer a wide range of studies, from Architecture to Physics & Quantum Computing. There's something for everyone to explore, including the vibrant Bay Area and Silicon Valley. Led by experienced academics and industry experts, Summer Springboard classes offer the chance to visit and interact with working professionals in your field of interest. Our programs blend rich academic curricula with dynamic workshops and projects to foster self-discovery. Plus, you'll have the opportunity to connect with peers from around the world who share your interests.

Thank you again for choosing Summer Springboard. We can't wait to welcome you!

Sincerely,

Claudine Jones, Program Director
Summer Springboard

That's me with the SSB team at our Director's training last year

Our Outstanding Instructors

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From an award winning architect to an Albert Einstein Distinguished Fellow to a professor who owns five patents and worked with Steve Jobs to create the first iPhone camera, students will learn firsthand from experts in their field.

Rudi Hechfellner
3D CAD & RAPID PROTOTYPING

As a Director of Systems Engineering, Sensors and Internet of Things in Silicon Valley, Rudi brings 25 years of experience leading product development, systems engineering, and global program management for the semiconductor, consumer, lighting, and IoT industries.

Oren Katzeff
BUSINESS & ENTREPRENEURSHIP SESSION 2

Oren holds his JD in Law from UC Berkeley College of Law and his BS in Business Administration from UC Berkeley. He is the CEO of Literally Media, the largest online publisher of humor and entertainment content, and has spent over 20 years building and scaling content and operations for prominent brands. He joined Literally Media from Conde Nast, where as President of their entertainment division, he oversaw the film, TV, and video business for all Condü Nast brands, including Wired, Vanity Fair, Vogue, and The New Yorker.

David Kesler, AIA
ARCHITECTURE

Dave is the principal of Dave Kesler Architecture and an award-winning San Francisco-based architect with over 30 years of experience and in private practice for 22 years. He is also an experienced industrial designer, watercolorist, and musician. His firm has designed over 200 projects ranging from high-end residential and multi-family housing, to commercial and institutional work.

Dr. Qi Zhao
COMPUTER SCIENCE

Dr. Zhao holds his PhD degrees in Computer Science in Networking System and also in Computer Architecture from UCLA . He's worked in the UCLA Internet Research Lab and Network Research Lab for computer networking research, where he won the CS Departmental Fellowship and taught multiple introductory and advanced Computer Science courses at UCLA.

Luis Valentin Alvarado
BIOTECHNOLOGY

Luis received his BS in Microbiology from the University of Puerto Rico at Humacao in 2016. He worked as a Research Assistant at the Woods Hole Oceanographic Institution and Massachusetts Institute of Technology before starting a Ph.D. in Genomics and Structural Biology at UC Berkeley. Luis is currently a Ph.D. candidate in the Department of Microbial Biology and Innovative Genomics Institute at UC Berkeley.

Anaïs Voski
ECOLOGY & ENVIRONMENTAL SCIENCE

Anais Voski is a quadrilingual PhD candidate in Environment & Resources (E-IPER) at Stanford University and is currently conducting experiments and behavioral interventions at the nexus of environmental sustainability, psychology, and health with an emphasis on environmental justice.

Mike Mitchell
BUSINESS & ENTREPRENEURSHIP SESSION 1

Mike holds his Masters from UC Berkeley's Rausser College of Natural Resources in Development Practice and his BS in Marketing, Environmental Policy & Management from the University of Pennsylvania. He is the CEO of Pezzy Pets where he is building a supply chain of small-scale fishermen across Mexico and the US to turn overly abundant, invasive fish species into single and limited ingredient pet treats.

Allan Lacayo
ECONOMICS

Allan Lacayo holds his MA in Economics from UC Berkeley and is currently serving as a visiting professor in Economics at Saint Mary's College and is a professor of Economics at Diablo Valley College. He previously served as the Senior Economist in the Controller's Office for the City and County of San Francisco.

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Rudi Hechfellner

ELECTRICAL ENGINEERING: IOT

As a Director of Systems Engineering, Sensors and Internet of Things in Silicon Valley, Rudi brings 25 years of experience leading product development, systems engineering, and global program management for the semiconductor, consumer, lighting, and IoT industries.

Emily Twedell

NEUROBIOLOGY

Emily Twedell is currently a PhD candidate at UCSF, investigating the cellular and circuit mechanisms underlying levodopa-induced dyskinesia. Prior to that she was a Research Fellow at the National Institute of Neurological Disorders and Strokes (NIH) investigating properties of midbrain dopamine neurons.

Dr. Keerthi Gondy

EMERGENCY MEDICINE

Dr. Gondy is a member of the SSB Emergency Medicine instructional team and attended college and medical school at the University of Michigan in Ann Arbor. She is currently training in the UCSF-ZSFG Emergency Medicine Residency Program and is interested in global emergency medicine, humanitarian aid, ultrasound, and medical education.

Mark Hannum

PHYSICS & QUANTUM COMPUTING

Mark Hannum holds his MS in Applied and Engineering Physics from George Mason University and his BA in Mathematics and Physics. He is an accomplished educator and physicist, and has over 20 years of experience teaching both in high school and at American University. He is an Albert Einstein Distinguished Fellow and is currently directing the Quantum Information and Optics research program at Thomas Jefferson High School for Science and Technology (TJHSST).

Dr. Mariam Hjaige

EMERGENCY MEDICINE

Dr. Hjaige is a member of the SSB Emergency Medicine instructional team and has her BS in Biopsychology, Cognition and Neuroscience from University of Michigan and attended medical school at Michigan State University. She is currently training in the UCSF-ZSFG Emergency Residency Program and is interested in public health, health disparities, global health, critical care, diversity and mentorship.

Dr. Deborah Plante

PRE-MED

Dr. Plante is a member of the SSB Pre-Med specialty instructional team and currently serves as the Medical Director of the Inpatient Glycemic team and Professor of Internal Medicine in UC Davis's Division of Endocrinology, and has over 20 years of inpatient and outpatient diabetes experience.

Dr. Farhad Rostamian

FUNDAMENTALS OF ENGINEERING

Dr. Farhad Rostamian is currently a professor at UCLA teaching courses at both Anderson School of Management and Samueli School of Engineering. Prior to this academic position, he spent over 25 years making highly innovative and iconic products such as the pill camera (with Given Imaging), the camera for Apple's 1st iPhone (working directly with Steve Jobs), and sensors for disposable insulin pumps (with Medtronic). He has worked in Asia, Europe and the Americas. He holds five US and international patents. His passion lies in education and mentorship.

Sean Chandler

PSYCHOLOGY & NEUROSCIENCE

Sean Chandler holds his Master's degree in Psychology from SFSU, with a focus on research into our minds, brains, and behavior. He manages the Cognitive Psychophysiology Lab at SFSU and is a full-time professor of research methods, cognitive psychology, and theories of motivation. His research uses a brain imaging technique called electroencephalography (EEG or "brainwaves") to explore how multimodal sensory inputs are automatically "binded" by neuronal structures and processes to produce our seamless experience of reality.

Summer Springboard Schedule

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Week 1

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
8:00AM-9:00AM		Breakfast					
9:00AM-Noon		Commuter Check In* 8:30AM - 9:00AM / All Student Orientation 9:00AM - 9:45AM / Academic Classes 10:00AM - 12:00PM	Academic Classes	Academic Classes	Academic Classes	Academic Classes	City Tour
Noon-1:00PM		Lunch					
1:00PM-1:30PM		Free Time or Bus Loading					
1:30PM-3:00PM		Ice Breakers & Teambuilders 1:30PM - 2:30PM / Free Time 2:30PM - 3:00PM	Campus Tour: UC Berkeley	Academic Excursions	True You	Fun Friday Activity	
3:00PM-5:00PM	Check In 3:00PM - 6:00PM	Electives 3:00PM - 4:30PM / Free Time 4:30PM - 5:00PM	Electives	Mentor Groups	Electives		
5:00PM-6:00PM	Commuter Check In 4:00PM - 6:00PM	Campus Boundary Walk 5:00PM - 6:00PM	Free Time/Commuters Depart 6:00PM				
6:00PM-7:00PM		Dinner @ Crossroads					Dinner in Berkeley
7:00PM-8:30PM		Evening Activity	Evening Activity	Evening Activity	Evening Activity	Evening Activity	Evening Activity
8:30PM-9:30PM	Dorm Meeting	Free Time					
9:30PM		Back in Dorm					
10:30PM		Room Checks					

Week 2

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
8:00AM-9:00AM		Breakfast				Check Out 7:00AM - 10:00AM
9:00AM-Noon	California's Great America (includes lunch & dinner)	Academic Classes	Academic Classes	Academic Classes	Academic Classes	Airport Departure 9:00AM
Noon-1:00PM		Lunch				
1:00PM-1:30PM		Free Time	Campus Tour: Stanford University	Free Time		
1:30PM-3:00PM		True You		Academic Excursions	True You: College Panel	
3:00PM-5:00PM		Electives		Mentor Groups	Presentations & Closing Ceremony	
5:00PM-6:00PM		Free Time/Commuters Depart 6:00PM				
6:00PM-7:00PM		Dinner@ Crossroads				
7:00PM-8:30PM		Evening Activity	Evening Activity	Games & Packing Party	Springboard Soiree & Final Party	
8:30PM-9:30PM		Free Time				
9:30PM	Dorm Meeting	Back in Dorm				
10:30PM		Room Checks				

*Monday 8:30AM Check-in is only for those commuter students who did not check in with us on Sunday

**Juneteenth & 4th of July Holidays will have slightly different programming for students, please consult detailed daily schedule for more information

Please keep in mind that some academic lab and academic excursion times are subject to change.

A Day In The Life

This is a typical day of a Summer Springboard student for residential students on program during the weekdays.

8:00am Breakfast	**9:00am - Noon** Academic Course
1:30pm - 3:00pm | Academic Excursion or True You or Recreational Activity	**Noon | Lunch**
3:30pm - 5:00pm Enrichment Elective	**6:00pm | Commuter Students Depart**
7:00pm Evening Activities	**6:00pm | Dinner**
10:30pm | Mentor Check-in	**Repeat!**

Summer Springboard programs are not run by our campus locations. Universities and their affiliated departments are not responsible for the Summer Springboard program in any way.

Program Types & Tuition

Residential

The residential students will spend two weeks (high school) or one week (middle school) living in either Unit 1 or Unit 2 residence hall, while eating in the Crossroads Dining Commons. Program classrooms are situated on or near campus. All excursions and activities are included.

Residential Tuition: $5,898*

Commuter

Our commuter students will experience the Day In The Life schedule from 9am - 6pm. These students are able to add the weekend excursions for an additional fee.

Commuter Tuition: $3,198*

*Some courses require an additional tuition supplement of $250: 3D CAD & Rapid Prototyping, Architecture, Electrical Engineering: IoT, Emergency Medicine, Fundamentals of Engineering, Pre-Medical, and MS Medicine.

Enrichment Electives

In the afternoons, dive into enrichment electives that allow you to explore something you are curious about, acquire new skills, and meet new people to gain a well-rounded pre-college program experience.

COLLEGE ADMISSIONS

Unlock the secrets of the daunting college application process and learn from Summer Springboard mentors who have valuable insights. You'll leave this elective with more knowledge on the college search and your criteria, essay writing, identifying on-campus opportunities, and the admissions process.

DIGITAL ARTS

Bring your creativity to this elective as you'll spend your time exploring the art of photography, videography, design, and the range of skills needed to create good visual content. Bring your camera or phone and your desire to discover beauty. Students will work on building their portfolios, which they can continue to build on when they return home.

PUBLIC SPEAKING

From speaking in front of a class to prepping for a college interview, develop your ability to express yourself clearly and confidently. You will gain best practices for organizing your ideas, supporting your argument, audience awareness, how to use visual aids, and how to deliver.

LIFE SKILLS

Learn fundamental skills in money management, workplace best-practices, nutrition, mental health, and personal development. This is the perfect time to ask questions and grow outside of the academic space.

ATHLETICS

Spend your afternoon in the athletics elective if you love physical activity, learning new games, and playing on a team. Get to know the college campus in a new way as you workout and move outside.

SERVICE LEARNING

Gain an introduction to service learning and ideas on how to create sustainable projects that have a lasting impact in your community.

Weekend Excursions

Berkeley and Surroundings

Immerse yourself in a fulfilling pre-college experience, where academic excellence meets vibrant campus life. This program offers students a unique opportunity to engage with high quality Summer Springboard faculty, explore cutting-edge research, and discover passions. From hands-on laboratory experiments to cultivating lifelong skills, come grow, explore and learn amidst the iconic backdrop of Berkeley's historic campus.

Major Attractions

All students will tour Berkeley's and Stanford's campuses, and ride on the ferry to the historic San Francisco Ferry Building. Students enrolled in the residential program will also visit major attractions in and around the Bay Area, like the Golden Gate Bridge, Fisherman's Wharf, Union Square, Chinatown, Ghirardelli Square, a cable car, and take a trip to California's Great America.

Academic field trips

As part of each course, students will attend field trips with their classmates and instructors. Together they will venture out into the Bay Area and get a glimpse of the daily operations of a business or meet with professionals in their chosen industry. Each program has curated excursions with some of the best locations the Bay Area has to offer like Thermo Fisher Scientific, Tesla, Intel, Google, Wells Fargo Museum, Exploratorium, NASA Ames Science Center, Circuit Launch, UCSF and more.

Campus Life

Student Life

Enjoy hanging out with new friends in the residence hall common areas both indoors and outdoors (this is California)! Be sure to grab some of the best coffee, ice cream, or boba tea on Telegraph Avenue in the heart of Berkeley, CA.

Lodging & Meals

Students will share a dorm room and have access to communal bathroom and shower facilities on each floor in either Unit 1 or Unit 2 Residence Halls. The Bay Area summer temperatures are generally very mild, which is why the dorms are not equipped with air conditioning. Meals will be provided at the Crossroads Dining Commons, catering to a wide range of dietary preferences. Additionally, every dorm is equipped with a mini refrigerator and microwave for storing and reheating food purchased locally.

Testimonials

"My Summer Springboard journey offered an exceptional experience for aspiring college students. It provided a unique opportunity to immerse oneself in the rich academic and cultural environment of one of the world's leading universities. The program's curriculum was thoughtfully designed, combining theoretical knowledge with hands-on practical exercises and studio work. We had access to valuable resources and received guidance from renowned faculty members who fostered a supportive and collaborative learning environment."

Liyah A.,
Former Summer Springboard Student

"I think the program was great in the way it really made me see what I wanted to do in my future. I did Pre-Med and thought that bringing in different instructors from different specialities gave me a wide range of knowledge."

Moriah V.,
Former Summer Springboard Student

SSB High School Course List

High school programs are two weeks long and are designed for students ages 14-17.

		Session 1 6/16 - 6/28	Session 2 6/23 - 7/5	Session 3 6/30 - 7/12	Session 4 7/7 - 7/19	Session 5 7/14 - 7/26	Session 6 7/21 - 8/2
Business & Law Track	Business & Entrepreneurship	✓		✓		✓	
	Economics		✓		✓		✓
Engineering & Science Track	3D CAD & Rapid Prototyping		✓		✓		
	Biotechnology		✓		✓		✓
	Computer Science		✓		✓		✓
	Electrical Engineering: IoT		✓				✓
	Fundamentals of Engineering	✓		✓		✓	
	Ecology & Environmental Science	✓		✓		✓	
	Math for Machine Learning	✓		✓		✓	
	Physics & Quantum Computing			✓		✓	
Media & Design Track	Architecture		✓		✓		✓
Medicine & Healthcare Track	Emergency Medicine	✓		✓		✓	
	Neurobiology	✓		✓		✓	
	Pre-Medicine		✓		✓		✓
	Psychology & Neuroscience		✓		✓		✓

*Program course dates are subject to change, visit our Session Status Board to check the current status of each program.

3D CAD & RAPID PROTOTYPING*

Highlights

- Gain a deep understanding of the principles and methods of 3D Computer-Aided Design (CAD) and Rapid Prototyping using a 3D printer.
- Design and create 3D CAD models using Autodesk Fusion360.
- Learn the principles and techniques of 3D printing and be able to select and maintain a 3D printer.
- Develop the skills to use a 3D printer for rapid prototyping, review, and improve designs.
- Create functional and aesthetically pleasing 3D-printed products of your own design.
- Students will design and build their own 3D printer to take home.

3D CAD & Rapid Prototyping Excursion Highlight:
Students excursions for this course may include visiting a co-working rapid prototyping makerspace in the Bay Area and meeting with product management and design professionals, as well as tour the Jacobs Institute for Design Innovation.

Sessions & Dates	Program Type	Infosheet
• S2: June 23 - July 5 • S4: July 7 - July 19	Engineering & Science	View our infosheet

This course requires an additional tuition supplement of $250

ARCHITECTURE*

Highlights

- Master all the steps of building a structure–from strategic ideation to the finished product.
- Design buildings, select materials and analyze the sustainability impact as you perform hands-on design simulations.
- Prepare a portfolio of your final presentation, including hand drawings.
- Visit professional firms and tour behind the scenes of local attractions to see the best examples of various architectural styles.

Architecture Excursion Highlight:
Students will explore the concepts behind mimetic design while visiting the beautiful Tilden Regional Park, also known as Inspiration Point in Orinda, CA. Students in this class have visited some of the top, award-winning architectural firms in San Francisco, such as: Studio O + A, Aidlin Darling Design and Studio Sarah Wilmer.

Sessions & Dates	Program Type	Infosheet
• S2: June 23 - July 5 • S4: July 7 - July 19 • S6: July 21 - Aug 2	Media & Design	View our infosheet

This course requires an additional tuition supplement of $250

BIOTECHNOLOGY

Highlights

- Uncover the secrets hidden beneath the soil under our feet and explore the study of microbiology.
- Learn how to isolate and test for the potential to yield the next generation of antibiotics.
- Discover the incredible power to modify DNA within genomes and witness its transformational impact.
- Utilize sophisticated lab tools, from pipettes to gene-editing technology, as you dive deep into the art of scientific discovery.

Biotechnology Excursion Highlight:
Students will spend a half day with the extraordinary scientific team at ThermoFisher Scientific learning about their cutting edge life science technology and meeting researchers who are working to develop and manufacture life-changing diagnostics and therapies. Students will also visit the QB3 Mass Spectrometry Facility and an university research facility investigating CRISPR technology.

Sessions & Dates	Program Type	Infosheet
- S2: June 23 - July 5 - S4: July 7 - July 19 - S6: July 21 - Aug 2	Engineering & Science	View our infosheet

BUSINESS & ENTREPRENEURSHIP

Highlights

- Introduce the Business Model Canvas approach to entrepreneurship.
- Work in teams to create a new business venture and develop a sales and marketing plan to pitch your venture to investors and mentors.
- Understand how operations, marketing, sales, and finance come together to drive businesses.
- Hear the tales of survival of a startup business from an entrepreneurial founder.

Business & Entrepreneurship Excursion Highlight:
Last summer students toured the Salesforce Tower, the tallest building in San Francisco and home to an incredible 5.4 acre public park, and met with members of their Critical Incident customer service team. They also had the opportunity to learn about small business resources available in the Bay Area from the education team at the Renaissance Entrepreneurship Center and meet with 3 owners of local small businesses.

Sessions & Dates	Program Type	Infosheet
- S1: June 16 - June 28 - S3: June 30 - July 12 - S5: July 14 - July 26	Business & Law	View our infosheet

COMPUTER SCIENCE

SUMMER SPRINGBOARD
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Highlights

- Gain foundational experience with the Python programming language, exploring the fundamentals and covering a blend of theory and hands-on practice.
- Gain proficiency using different data types and be introduced to basic data manipulation techniques using Pandas and NumPy.
- Learn to create and manipulate collections and become adept at using loops for iterating over data.
- Gain insights into how Python can be used in various fields like web development, data science, automation, and more.

Computer Science Excursion Highlight:
Students will dive into the tech wonders of Silicon Valley! Exploring the rich history of computers and the innovative breakthroughs that originated in this iconic hub at the Computer History Museum. Afterwards, they will take an interactive tour of Google HQ's Visitor Center, showcasing the tech giant's cutting-edge hardware and software. Students will also have an opportunity to visit Intel's headquarters and museum.

Sessions & Dates	Program Type	Infosheet
• S2: June 23 - July 5 • S4: July 7 - July 19 • S6: July 21 - Aug 2	Engineering & Science	View our infosheet

ECOLOGY & ENVIRONMENTAL SCIENCE

Highlights

- Gain an introduction to conservation research and conservation management methodologies.
- Learn how complex environmental matters are delineated through scientific study, including field work, lab work, and analysis of data.
- Examine how environmental matters are addressed through management plans and practices based on scientific study and evidence.
- Analyze how environmental policy is developed and debated to learn about how science, management, and other factors determine policy.

Ecology & Environmental Science Excursion Highlight:
Students will enjoy a trip to Save the Bay's community-based habitat restoration program where they will connect with San Francisco Bay estuary and engage with their critical tidal marsh restoration project. This excursion is designed to help students understand the local habitats of San Francisco Bay and the importance of environmental stewardship in hopes of connecting themselves and the environment. Students may also tour a local recycling transfer station.

Sessions & Dates	Program Type	Infosheet
• S1: June 16 - June 28 • S3: June 30 - July 12 • S5: July 14 - July 26	Engineering & Science	View our infosheet

ECONOMICS

Highlights

- Learn about fundamental economic concepts such as micro and macroeconomics, historical trends, human behavior, supply and demand, market forces, and pricing.
- Apply economic theories to real-world scenarios and analyze how economic principles impact various sectors of society, such as labor markets, the environment, and international trade.
- Enhance skills in interpreting statistical information and using quantitative tools to make informed decisions.
- Gain a better understanding of economic growth, inflation, and GDP, as well as debate on policy conflicts and fiscal policies.
- Examine the benefits of trade activity and globalization.

Economics Excursion Highlight:
Students will learn about the rich financial market history on a tour in heart of the Financial District in San Francisco and visit the Wells Fargo Museum where students will learn how the banking behemoth began.

Sessions & Dates	Program Type	Infosheet
• S2: June 23 - July 5 • S4: July 7 - July 19 • S6: July 21 - Aug 2	Business & Law	View our infosheet

ELECTRICAL ENGINEERING: IoT*

Highlights

- Hands-on experience with the fundamental concepts of electricity, electronic circuits and their components, hardware and software, programming, sensors and actuators.
- Be introduced to the exciting field of Internet of Things and its various business and scientific applications.
- Gain practical application skills using Linux, SQLite, Node Red, MQTT and JSON.
- Learn about wireless networks, messaging protocols, and databases while creating a working IoT system.

Electrical Engineering: IoT Excursion Highlight:
Last year students visited and toured LumiLEDS, a global leader in LED lighting and OEM lighting solutions, and toured Berkeley's College of Engineering.

Sessions & Dates	Program Type	Infosheet
• S2: June 23 - July 5 • S6: July 21 - Aug 2	Engineering & Science	View our infosheet

This course requires an additional tuition supplement of $250

EMERGENCY MEDICINE*

Highlights

- Discover practical skills such as suturing, stopping a bleed and taking vital signs.
- Gain valuable insight into diverse educational and career opportunities in medicine and healthcare.
- Participate in a "mass casualty incident" where you work against the clock to save as many people as possible.
- Train in a medical simulation lab where medical students refine their life-saving skills, such as intubation and CPR.

Emergency Medicine Excursion Highlight:
Students will be trained in practical skills from their academic program at the UCSF KANBAR Center for Simulation and Clinical Skills. Students will also meet with emergency personnel at the local Berkeley Fire Department.

Sessions & Dates	Program Type	Infosheet
• S1: June 16 - June 28 • S3: June 30 - July 12 • S5: July 14 - July 26	Medicine & Healthcare	View our infosheet

This course requires an additional tuition supplement of $250

FUNDAMENTALS OF ENGINEERING*

Filling Fast!

Highlights

- Develop 3D solutions to design challenges to learn the fundamentals behind mechanical, civil, and biomedical engineering.
- Manufacture an artificial limb to replicate natural function and movement in real world situations.
- Design and build a scale model structure compliant with code, zoning, and budget requirements.
- Learn from professionals in the field about the latest advancements in engineering and technology.

Fundamentals of Engineering Excursion Highlight:
Students will have the opportunity to visit Tesla's Fremont Factory, the largest manufacturing site in California that produces well over half million electric vehicles annually. Students will also visit Circuit Launch and meet the inspiring founder of the shared electronic and prototype lab for startup AR, VR, Robotics and hardware electronic companies.

Sessions & Dates	Program Type	Infosheet
• S1: June 16 - June 28 • S3: June 30 - July 12 • S5: July 14 - July 26	Engineering & Science	View our infosheet

This course requires an additional tuition supplement of $250

MATH FOR MACHINE LEARNING

New Course

Highlights

- Learn the basics of machine learning: What is data? What are models? How do machines learn?
- Discover how math is used in machine learning: Math helps us design and train machine learning algorithms, evaluate their performance, and interpret their results.
- See how machine learning is used in the real world through the use of power image recognition, natural language processing, fraud detection, and many other applications.
- No prior coding experience needed; students will learn the necessary Python skills to load in a dataset in csv, plot data and save dataset to disk, and model in Machine Learning using a statistical algorithm.

Math For Machine Learning Excursion Highlight:
Students will gain a foundational understanding of algorithms and how they are applied in Machine Learning (ML) practices. They will gain hands-on experience coding in Python and interact with ML models within a Python notebook development environment on Google Colab. Students will meet with experts in the artificial intelligence industry and potentially visit AI labs and research facilities pioneering undiscovered innovations.

Sessions & Dates	Program Type	Infosheet
• S1: June 16 - June 28 • S3: June 30 - July 12 • S5: July 14 - July 26	Engineering & Science	View our infosheet

NEUROBIOLOGY

New Course

Highlights

- Comprehend the fundamental structure and function of the mammalian nervous system.
- Learn how neurobiological research has advanced our understanding of the complexities of the brain.
- Explore disruptions in the brain caused by injury or neurological disease.
- Analyze how the nervous system adapts throughout life in response to experiences.

Neurobiology Excursion Highlight:
Students will gain a comprehensive introduction and exploration of neurobiology and the fascinating interdisciplinary study of neuroscience, the brain, and nervous system. Students will have the opportunity to visit a local neuroscience center engaged in research and development, as well as meet with researchers in the field.

Sessions & Dates	Program Type	Infosheet
• S1: June 16 - June 28 • S3: June 30 - July 12 • S5: July 14 - July 26	Medicine & Healthcare	View our infosheet

SUMMER SPRINGBOARD
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Highlights

- Learn accessible, yet challenging, introductory material in the fields of physics and quantum computing.
- Cover topics such as quantum mechanics, quantum information science and computation, and quantum hardware.
- Discover why having a foundational understanding of quantum computing will be important to politicians, public health researchers, and quantum engineers.
- Develop skills in quantum computing - the technology of the future!

Physics & Quantum Computing Excursion Highlight:
Last year, students were invited to tour UC Berkeley's Haeffner Trapped Ion lab where graduate researchers were investigating various aspects of quantum physics and quantum information. This year, students will have the opportunity to visit a Quantum Computing hardware manufacturer in Berkeley and speak with Quantum Computing thought leaders in the industry.

Sessions & Dates	Program Type	Infosheet
• S3: June 30 - July 12 • S5: July 14 - July 26	Engineering & Science	View our infosheet

PRE-MED*

Filling Fast!

Highlights

- Learn about a variety of fields of medicine to begin identifying an area of interest for medical school.
- Learn about the process of applying to medical school and how to plan your future medical pathway beyond medical school admissions.
- Meet medical professionals, students, and residents to "rotate" through a variety of medical disciplines and learn more about possible medical research and get hands-on experience in the field.
- Explore an emerging medical issue or field and perform research on the topic to begin finding possible solutions with the help of current medical students.

Pre-Med Excursion Highlight:
Last year students in this program practiced their newly acquired skills at the UCSF KANBAR Center for Simulation and Clinical Skills, as well as rotated through various medical disciplines and met practicing professionals in those specialties.

Sessions & Dates	Program Type	Infosheet
• S2: June 23 - July 5 • S4: July 7 - July 19 • S6: July 21 - Aug 2	Medicine & Healthcare	View our infosheet

This course requires an additional tuition supplement of $250

Highlights

- Uncover the mystery of how the mind works, and examine the connection between the brain and human behavior.
- Develop solutions to the complex questions of human behavior through hands-on activities such as a brain dissection and real world experiments.
- Understand treatment strategies for a variety of mental health issues that affect millions of individuals.
- Interact with clinical psychologists, neurologists and researchers who are experts in this specialized field.

Psychology & Neuroscience Excursion Highlight:
Students will explore the Cognitive Psychophysiology Lab at San Francisco State University (SFSU) with their instructor and classmates and uncover the intricacies of an electroencephalogram (EEG) test and its evaluative processes during this enlightening visit.

Sessions & Dates	Program Type	Infosheet
• S2: June 23 - July 5 • S4: July 7 - July 19 • S6: July 21 - Aug 2	Medicine & Healthcare	View our infosheet

SSB MIDDLE SCHOOL COURSE LIST

Middle school programs are designed for students ages 12-14 and rising 6th to 8th graders. The programs are 5-days and offer students afternoon hands-on academic labs and/or excursions to enhance their immersive experience in the fields in which they are studying.

		Session 1 7/7 - 7/12	Session 2 7/14 - 7/19	Session 3 7/21 - 7/26	Session 4 7/28 - 8/2
Business & Law Track	Middle School Business	✓	✓		✓
Engineering & Science Track	Middle School Computer Science			✓	✓
Medicine & Healthcare Track	Middle School Medicine	✓	✓	✓	✓
	Middle School Psychology		✓		

*Program course dates are subject to change, visit our Session Status Board to check the current status of each program.

SSB MIDDLE SCHOOL SCHEDULE

SUMMER SPRINGBOARD
Look Inward. Go Upward.

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
7:30AM-8:30AM	Breakfast					
9:00AM-Noon		Commuter Check-in* 8:30AM - 9:00AM All-Student Orientation & Academic Classes 9:00AM - 9:30AM Academic Classes 9:30AM - 12:00PM	Academic Classes	Academic Classes	Academic Classes	Academic Classes
Noon-1:00PM		Lunch @ Crossroads				Closing Ceremony & Final Party 12:00 - 2:30PM
1PM-1:30PM		Free Time or Bus Loading Time				
1:30PM-3:00PM	Residential Check In 2:00PM - 6:00PM Commuters Check In 4:00PM - 5:00PM	Ice-Breakers & Mentor-led Activity	Academic Lab or Excursion	Academic Excursion	Academic Lab or Excursion	Check-Out & Airport Departure 2:30PM
3:30PM-5:00PM		Campus Tour & Boundary Walk		Mentor Groups		
5:00PM-6:00PM		Free Time/Commuters Dept at 6:00PM				
6:00PM-7:00PM	Dinner @ Crossroads					
7:00PM-8:00PM	Residential Student Orientation	Evening Activity	Evening Activity	Evening Activity	Evening Activity	
8:00PM-8:30PM	Dorm Meeting	Free Time			Back in dorm Clean up & Packing Party	
8:30 PM		Back in Dorm				
9:30 PM	Room Checks					

*Monday commuter check-in is for students who were unable to check-in on Sunday from 4-5pm

Please keep in mind that some academic lab and academic excursion times are subject to change.

A DAY IN THE LIFE - MIDDLE SCHOOL

SUMMER SPRINGBOARD
Look Inward. Go Upward.

This is a typical day of a Summer Springboard student for residential middle school students on program during the weekdays.

- **8:00am** Breakfast
- **9:00am - Noon** Academic Course
- **Noon | Lunch**
- **1:30pm | Academic Lab or Excursion**
- **5:00pm | Free Time**
- **6:00pm | Dinner**
- **7:00pm | Evening Activities**
- **8:00pm | Free Time**
- **8:30pm | Back in the dorm**
- **9:30pm | RA Check-in**

Summer Springboard programs are not run by our campus partners. Universities and their affiliated departments are not responsible for the Summer Springboard program in any way.

MIDDLE SCHOOL BUSINESS

Students in this program will become part of a new company they devise and will work in teams on various aspects of the new business. The program culminates in a Shark Tank-style pitch presentation with industry veterans as their potential mock investors.

Students can expect to visit the Jelly Belly factory in Fairfield, CA to see daily operations first hand.

MIDDLE SCHOOL COMPUTER SCIENCE

This program will introduce students to computer programming and develop foundational coding skills. Students will apply fundamental building blocks of programming languages including, variables/arrays, conditionals, loops, and functions, to solve problems and create algorithms.

Students can expect to visit the Chabot Space & Science Center as well as the Exploratorium.

MIDDLE SCHOOL MEDICINE

This program provides middle school students interested in pursuing a career in medicine and healthcare with real hands-on experience where they can build a set of skills at an early age.

Students can expect to visit Berkeley Fire Department, earn their CPR certification, and visit The Tech in San Jose, CA where they will experience the 3D technology of an Anatomatage Table.

MIDDLE SCHOOL PSYCHOLOGY

This program provides middle school students who are interested in pursuing a career in psychology with an understanding of what psychologists study and what a day on the job looks like. Students will explore social dynamics, emotions, personality, the nature of beliefs and the relationship between the mind, brain and body.

Students can expect to visit the Cognitive Lab at San Francisco State University.

SUMMER SPRINGBOARD
Look Inward. Go Upward.

10509 San Diego Mission Rd., Suite S
San Diego, CA 92108

Save your spot now
to avoid the waitlist!

ENROLL NOW!

PRE-COLLEGE PROGRAMS FOR TEENS ON THE
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Questions? Call us at +1.858.780.5660
or email us at california@summerspringboard.com