SUMMER SPRINGBOARD
Look Inward. Go Upward.

Aerospace Engineering Infosheet

New student admissions for Summer 2026 are open

2-Week Course

This is a two-week program where you'll focus on one course for the entire duration.

Program Highlights

- Learn the fundamentals of flight mechanics, aerodynamics, propulsion systems, aircraft design, and more.
- Understand the key differences between aeronautical and astronautical engineering and use basic orbital mechanics.
- Engage with professionals in the field about the latest advancements in aerospace engineering and flight technology.

2026 Dates

UCLA ($6,298)

- Session 1: June 21 - July 03
- Session 2: July 05 - July 17
- Session 3: July 19 - July 31

University of Washington ($5,798)

- Session 1: July 26 - August 7

Academic Program Overview

With companies like Boeing, SpaceX, Relativity Space, The Aerospace Corporation, Northrop Grumman, and NASA's Jet Propulsion Laboratory in both Los Angeles and Seattle, there's no better place to dive into the field of Aerospace Engineering than with Summer Springboard this summer. Have you ever wondered how a rocket works or how an aircraft stays airborne? What does it take to launch a person or satellite into space? Our Aerospace Engineering program offers students the opportunity to explore the physics and dynamics of air and spacecraft through basic orbital mechanics.

Students will engage in hands-on design challenges, ultimately creating and launching their own glider or rocket. They will also have the chance to visit aerospace companies and organizations in both Los Angeles and Seattle, as well as hear from experienced professionals in the field. In the past, students have benefited from guest speakers affiliated with the American Institute of Aeronautics and Astronautics, The Aerospace Corporation, and more.

While previous foundational knowledge in certain subjects is recommended (R) or strongly recommended (SR), it is not required: algebra (SR), geometry (R), trigonometry (R), calculus (SR), and physics (SR).

Excursions

Students will have the chance to visit companies, labs, or organizations in the aerospace engineering industry, as well as hear from experienced professionals in the field. In 2025, students at UCLA were able to visit the NASA Jet Propulsion Laboratory and The Aerospace Corporation. In 2025, students at UW visited and toured four aerospace labs on UW's campus and went to the Museum of Flight.

Note for UCLA students: Excursions to local aerospace companies will require proof of U.S. Citizenship due to contracts those companies hold with the federal government.

Instructors

UCLA - Dr. Vincent Phong (Sessions 1 & 3)

Dr. Vincent Phong had received his B.S., M.S. and Ph.D. in mechanical and aerospace engineering from the University of California, Irvine, where his research area focused on methods of identifying and reducing noise from propulsion systems. He currently is a propulsion engineer at the Aerospace Corporation, where he conducts applied experimental research to help investigate and mitigate propulsion system technology risk.

UCLA - Dr. Andres Garcia Jimenez (Session 2)

Dr. Andres Garcia Jimenez is a researcher in the Propulsion Science Department at The Aerospace Corporation, where he serves as a principal investigator (PI) and leads research on oxygen compatibility and ignition risks of materials used in rocket propulsion systems.

Washington - Dr. Carl Knowlen

Carl Knowlen received his Ph.D. in Aeronautical and Astronautical Engineering from the University of Washington in 1991 and is currently a Research Associate Professor with the UW William E. Boeing Department of Aeronautics and Astronautics. He has a strong background in modeling gas dynamics, chemical kinetics, heat transfer and fluid flow systems and extensive experience in experimental techniques for internal ballistics, subsonic and supersonic wind tunnel testing, cryogenic systems, rocket propulsion systems, and flow field diagnostics.

Tuition Information:

Residential Students:

- **Includes:** all meals, lodging, excursions, academic course, weekend excursions
- **Excludes**: optional airport pickup and drop off service (available for an additional fee)
- **Price**: See prices under 2026 dates

Commuter Students:

- **Includes:** lunch, academic course, excursions, programming from 9am to 5pm, Monday-Friday
- **Excludes:** lodging, breakfast, dinner, weekend excursions
  - Weekend excursions can be added on for $125 per day
- **UCLA Price**: $3,298
- **UW Price:** $2,998

Supplements:

- **Application Fee**: Starting at $99 (mandatory, non-refundable)
- **Course Supplement:** $250 tuition (mandatory)
- **Tuition Protection Plan**: Allows for cancellation for any reason up until the day of the program. Click here for more info.

Typical Schedule

8AM	Breakfast
9AM	Academic Course / Commuter Student Arrival
12PM	Lunch
1:30PM	Academic Excursions or Recreational Activity
3:30PM	College Readiness Workshop or True You
5PM-6:30PM	Commuter Student Departure
6PM	Dinner
7PM	Clubs
10:30PM	Night Checks

Course Structure

There are nine 3-hour class sessions over the two-week course. During week one, students have class from 9am-12pm Monday - Friday. During week two, students have class from 9am-12pm Monday through Thursday. Wednesday afternoons of each week are dedicated to students' course-specific academic excursion, guest speaker, or activity.

More info on Airport Transfer

More info on Unaccompanied Minor Service

Apply Now!

Important Note for UCLA Program:

Applications for the Aerospace Engineering course close early and will not be accepted after May 1, 2026.

Summer Springboard programs are not run by our campus partners (with the exception of Cal Poly, University of Washington Foster School of Business, and NYSID which are run in partnership with SSB). Universities and their affiliated departments and partners do not control and are not responsible or liable in any manner for any part of the Summer Springboard program.

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1-Week Course

This course is one week long, and you can extend your experience to as many as six weeks by adding additional one-week courses.

Academic Program Overview

Located near industry leaders like Pratt & Whitney and Sikorsky Aircraft and surrounded by world-class institutions throughout the Northeast, Yale offers an exceptional setting to explore Aerospace Engineering with Summer Springboard.

In this hands-on program, students dive into the physics and dynamics of air and spacecraft through basic orbital mechanics. They'll explore questions like: How does a rocket work? What keeps an aircraft in flight? And what does it take to launch a person or satellite into space?

Through design challenges, students create and launch their own glider or rocket. They'll also visit aerospace facilities and museums in Connecticut and New York, including the New England Air Museum and the Intrepid Sea, Air & Space Museum, home to the Space Shuttle Enterprise. Students hear from professionals in the field and get an inside look at cutting-edge aerospace technology and innovation.

There are no formal prerequisites for this program, but having a foundation in algebra, calculus and physics is strongly recommended. Geometry and trigonometry are also recommended.

Excursions

Students visit aerospace museums, tour facilities and hear directly from professionals in the field. In 2026, the program will include visits to the New England Air Museum, home to over 100 historic aircraft and interactive exhibits. Students will also explore the Intrepid Sea, Air & Space Museum in New York City, which features the Space Shuttle Enterprise, supersonic aircraft and flight simulators. Additional opportunities may include tours of regional aerospace facilities and conversations with industry experts.

Program Highlights

- Learn the fundamentals of flight mechanics, aerodynamics, propulsion systems and aircraft design
- Explore the differences between aeronautical and astronautical engineering, and apply basic orbital mechanics
- Connect with professionals to discuss the latest advancements in aerospace engineering and flight technology

2026 Dates

Yale

- Session 1: June 21 - June 27
- Session 2: July 05 - July 11
- Session 3: July 19 - July 25

Instructors

TBA

Courses are taught by accomplished and passionate faculty recruited from many area colleges, universities and professional forums. Each faculty member is selected for their subject area expertise and proven ability to both challenge and captivate students.

Course Structure

There are five 4-hour class sessions over the one-week course. Students have class from 9am-1pm, Monday-Friday. Afternoons are dedicated to students' course-specific academic excursion, guest speaker or activity.

Tuition Information:

Residential Students:

- **Includes:** all meals, lodging, excursions, academic course, weekend excursions
- **Excludes**: optional airport pickup and drop off service (available for an additional fee)
- **Price**: $4,298 first week $3,298 each additional week

Commuter Students:

- **Includes:** lunch, academic course, excursions, programming from 9am to 5pm, Monday-Friday
- **Excludes:** lodging, breakfast, dinner, weekend excursions
  - Weekend excursions can be added on for $125 per day
- **Price:** $2,498 first week $1,998 each additional week

Typical Schedule

8AM	Breakfast
9AM	Academic Course / Commuter Student Arrival
11AM	15-Minute Break
11:15AM	Academic Course
1:15PM	Lunch/Free-Time
3PM	Academic Excursion/Lab
5PM	Commuter Students Depart
6PM	Dinner
7PM	Evening Activity
8:30PM	Free-Time
9:30PM	Back in Dorms

Supplements:

- **Application fee**: Starting at $99 (mandatory, non-refundable)
- **Tuition Protection Plan**: Allows for cancellation for any reason up until the day of the program. Click here for more info.

More info on Airport Transfer

More info on Unaccompanied Minor Service

Apply Now!

Summer Springboard - 2026 is operated independently of Yale University and is not sponsored or endorsed by the University. The views expressed in connection with the program are not the official positions, statements of advice nor opinions of Yale University and should not be viewed as an endorsement by Yale of any such views or statements.