Stanford's undergraduate program in aeronautics and astronautics launches in the fall of 2017. Its mission: to equip students with the fundamental principles and techniques necessary to ensure their successful leadership in the conception, design, implementation, and operation of aerospace and related engineering systems.

The major prepares students for careers in aircraft and spacecraft engineering, space exploration, air- and space-based telecommunication, autonomous systems, robotics, commercial space transportation, military service, and other technology-intensive fields.

The curriculum blends traditional aerospace training with exposure to new technologies that enable smaller, cheaper, more capable flight platforms. Students will learn engineering principles through a project-based curriculum and apply these fundamentals to laboratory experiments and aerospace system design problems.

Given Stanford’s unique position in Silicon Valley and modern directions in aerospace engineering, the department has introduced requirements for courses in autonomy, embedded programming, and system-level analysis and design that are considered core principles in the program. Stanford Engineering, unlike the majority of our peer institutions (mostly technical institutes), integrates a liberal arts education into our program to give students a holistic approach to problem solving.

The new degree program is driven by extraordinary student and industry demand. Although we have had successful graduate degree and research programs in aeronautics and astronautics for nearly 60 years, undergraduate interest has grown by leaps and bounds over the last decade. Enrollment in AA100, the introductory course in the department, quadrupled. More students are participating in an interdisciplinary engineering major with an aerospace engineering concentration, and students have formed two popular new clubs: the Stanford Student Space Initiative and the Stanford Unmanned Aerial Vehicle Enthusiasts, Engineers, and Entrepreneurs. These two clubs have between 150 and 200 members each, many of whom will declare an aeronautics and astronautics major now that one exists.

Meanwhile, the aerospace industry faces a talent crunch. Following the growth of aerospace engineering during the Apollo Era, traditional firms are now experiencing a retirement wave. New industries related to unmanned aerial vehicles, autonomous systems, and commercial space transportation and exploration have been created and are hiring our graduates. When leaders in research and industry convened a workforce summit in 2016, they said “outreach, education, and recruitment” would be essential to sustain innovation. Yet in California, the state that generates the highest demand for aerospace graduates in the U.S., not one of the universities with top engineering programs offered an undergraduate major in aeronautics and astronautics—until now.
Giving Opportunities

Your investment will allow students to pursue a 21st-century career that anticipates the future needs of the field of aerospace engineering and science. Recognition of your gift will appear on Stanford’s Honor Rolls website. You will also become a lifetime member of the Dean’s Circle and receive an invitation to an annual event honoring the school’s most engaged and generous alumni and friends. Giving opportunities include:

Laboratories

UNDERGRADUATE TEACHING LAB $5 million
Support the creation of this cutting-edge undergraduate project lab occupying the entire second floor of the Hugh Hildreth Skilling Building. Undergraduates will use these facilities for all project-based courses, and for building responsive drones and space satellites, among other aerospace systems.

FLIGHT LAB $2.5 million
Support the creation of this state-of-the-art indoor facility in the William F. Durand Building, home to the Department of Aeronautics and Astronautics. Here, students can design, build, and flight-test a variety of unmanned systems including drones, surface vehicles, intelligent/collaborative robots, and other vehicle prototypes.

With your gift...
- The lab will be named in your honor, or in another name of your choosing; the name will appear on a plaque at the entrance to the lab.
- You will receive periodic updates on the lab’s activities and research programs.

Operational support

ENDOWED DEPARTMENT CHAIR $5 million
Support the establishment of an endowed department chair. The annual payout from this fund will be a valuable source of unrestricted funding, to be used at the discretion of the department chair.

With your gift...
- The holder of the chair, which changes every 5–10 years, will be recognized with a title designated in your honor or in another name of your choosing.
- The department chair will keep you informed of the research, teaching, course development, and other scholarly endeavors of the department, and you will be invited to participate in department seminars and functions.
- You will receive an annual financial report detailing the fund and the endowment performance.

For more information, please contact:

Frank Scioscia
Director, Strategic Partnerships
T 650.724.7703
scioscia@stanford.edu