Aerospace and aviation

Preparing students to take flight

ASU’s programs prepare students for a wide variety of career tracks. Undergraduates can choose concentrations in aeronautics, astronautics and autonomous vehicle systems, or other avenues that give a new view on air and space travel. These programs give students a rigorous technical lens in solving real problems.

- The **aerospace engineering** curriculum provides students with an education in technological areas critical to the design and development of aerospace vehicles and systems. The program emphasizes the design of aircraft, helicopters, missiles and other vehicles that fly through the atmosphere.

- ASU’s **aviation program in aeronautical management technology** offers comprehensive degree programs for both undergraduate and graduate students. Participants receive the highest quality education available in flight, air traffic and aviation management areas, both in a classroom setting as well as through real-world aviation training.

The ASU advantage

With an average of 300 days of sunshine per year, Arizona offers one of the best environments for flying in the country. Between the weather and the cutting-edge aviation science and technology, ASU provides top-notch collaboration and learning experiences.

- ASU is among five university research teams that are funded by NASA’s Aeronautics University Leadership Initiative to explore improving aviation.

- The U.S. News and World Report ranked ASU #1 in Engineering Innovation.
Facilities and labs

Facilities at the ASU Polytechnic campus are unmatched. Students have access to two hypobaric chambers, the larger of which is used predominantly for training purposes and the smaller specifically for research studies. Both chambers are capable of operationally changing the rate of decompression that a gentle climb to altitude can bring. They can simulate altitudes above 75,000 feet. ASU training centers include:

- Del E. Webb High Altitude Training Center.
- Drone Studio.
- Flight Simulator #44.
- Ottosen Air Traffic Control Simulation Laboratory.
- SIM Building.

NewSpace

ASU NewSpace leads the integration of academic and commercial space enterprises using ASU’s core strengths in space science, engineering and education.

- Creating academic-commercial partnerships that bring together the most brilliant minds in the space industry sector for an unprecedented collaborative effort.
- Leveraging the MILO Space Science Institute dedicated to transforming space science through shared cost and global collaboration.
- Partnering with Planet Labs to provide access to an expansive Earth-observation dataset of time-resolved data useful to a range of users.

ASU Simulator Building

The ASU Simulator Building is home to five flight simulators as well as multiple large laboratories for engineering technology programs.

- Several large, high bay labs are well equipped for anything from machining to welding to metrology.
- Provides practical experience in building automotive, aeronautical and manufacturing technologies.

ASU is one of two universities in the country that offers altitude chamber training courses.

Researchers at ASU work to decarbonize air travel.