UNIVERSITY of WASHINGTON

WILLIAM E. BOEING DEPARTMENT OF AERONAUTICS & ASTRONAUTICS

Aerospace engineers use math and science to design, develop and test vehicles, structures and systems to ensure safe and efficient operation on earth and in space.

Aerospace engineering offers an unparalleled opportunity to explore our planet and beyond, contributing to groundbreaking advancements in space exploration, satellite technology, autonomy, advanced materials, efficient flight, better energy and propulsion systems and more. Blending math, science, technology, and innovation, it plays a crucial role in addressing global challenges such as climate change and sustainable transportation. Students can contribute to a more sustainable and interconnected world.

What makes Aeronautics & Astronautics (A&A) special?

Join a small, close-knit department.
You will be able to form close relationships with each other through our cohort model, making it easy to form groups and make friends.

Benefit from small class sizes.
Our class size means you will have greater access to guidance from faculty and advisers to focus on community building, innovative problem solving, and career building.

Get involved with student organizations.
Check out our registered student organizations including DBF (Design, Build, Fly) – the student-led competition-based aircraft building club and SARP (Society for Advanced Rocket Propulsion) – the student-led competition-based rocketry club. Students can also join the student chapter of the AIAA (American Institute of Aeronautics & Astronautics), Women in Aerospace, Husky Satellite Club, and Students for the Exploration and Development of Space.

What problems are aerospace engineers trying to solve?

A&A specializes in the sub disciplines of controls, fluids, structures, plasma science, space systems and integrated flight sciences.

- How do we make navigation systems on vehicles more autonomous and propulsion systems more stable and efficient so we can explore places far away for longer periods of time?
- How can we shape the fuselage and wings of an aircraft so the vehicle is more fuel efficient?
- How can we optimize the manufacturing process to be more economical, environmentally friendly and safe?
- How do we produce lighter, more flexible, stronger materials for vehicles and other applications?
- How do we build more efficient energy and propulsion systems?

WHERE DO A&A ALUMNI WORK?

Senior capstone design projects

The senior capstone project is one of the most intensive, memorable, and eye-opening experiences in the undergraduate program. Recent projects include:

- Developing a cold gas propulsion system for stable control of a cubesat in Low Earth Orbit (LEO).
- Developing a spacesuit user interface leveraging augmented reality.
- Deploying two quadcopter aircraft from the payload bay of a UAV.
- Designing a utility freighter for use in small airports.

Industry

The majority of our students transition to industry right after graduation. Our alumni work under a variety teams, including aerodynamics, development, design and analysis, manufacturing, propulsion, stress testing, structures, systems and more.

Aerojet Rocketdyne, AeroTEC, Amazon Prime Air, Blue Origin, The Boeing Company, Honeywell Aerospace, Janicki Industries, MagniX, Millennium Space Systems, SpaceX, Systima Technologies

Graduate school

Some of our alumni choose to go to graduate school after graduation. Students pursue a master's degree to explore a particular sub discipline. Others continue on to a doctoral program for deep research in a narrow aerospace topic.

California Institute of Technology, Columbia University, Purdue, Stanford University, University of Maryland, University of Michigan, University of Southern California, UW

Government service

We have alumni working at the highest levels of NASA, national research labs and the military.

NASA, Pacific Northwest National Lab, Sandia National Lab, U.S. Air Force, U.S. Army, U.S. Coast Guard, U.S. Marine Corps, U.S. Space Force, U.S. Navy

A&A opportunities

Students can work in the Kirsten Wind Tunnel, a state-of-the-art commercial testing facility for aeronautical testing.

Join one of our award-winning competition-based clubs on satellites, flight, rocketry and more.

Explore undergraduate research in one of our labs or with WA NASA Space Grant. Apply to be matched with a mentor from our alumni network.

How can you learn more?

If you think A&A might be for you, we encourage you to join one of the A&A-affiliated registered student organizations. You can also start doing research in a lab even before placing into a major.