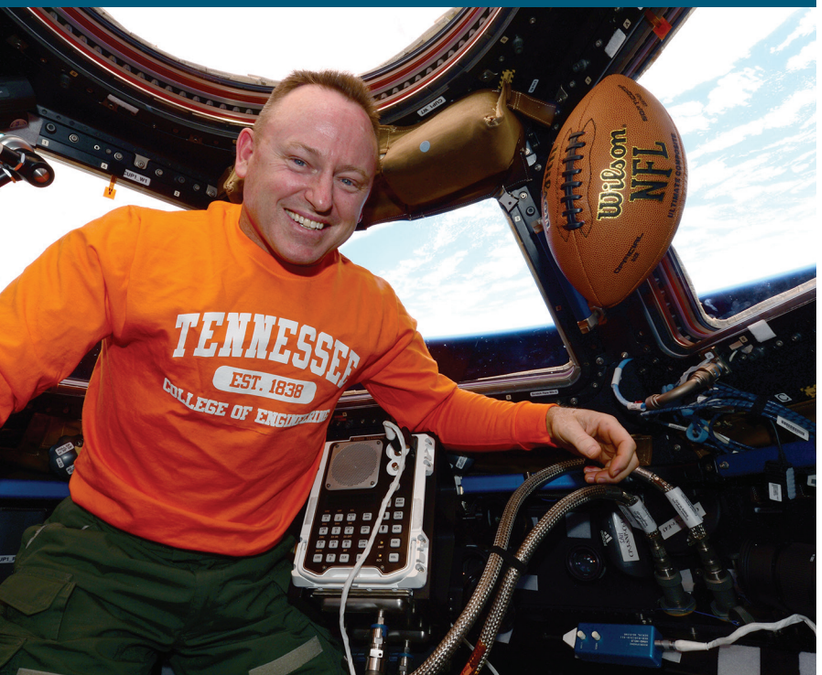
"When I was choosing a college, Tennessee was the only campus I truly felt at home on. I had no idea what to expect from the Tickle College of Engineering, but what I found proved to me every day that the home I found at Tennessee was truly special. The support I had from my professors, classmates, and even the department head and dean of the college enabled me to succeed more than I thought was possible. That support, coupled with real-world experience in the classroom and numerous leadership opportunities, opened up doors to incredible opportunities such as interning at both Pratt and Whitney and Lockheed Martin Space. Choosing to pursue my aerospace engineering education in the Big Orange Family continues to be the best decision I've ever made and I wouldn't be where I am today without the Tickle College of Engineering."

—Camille Bergin Calibeo, Class of 2019

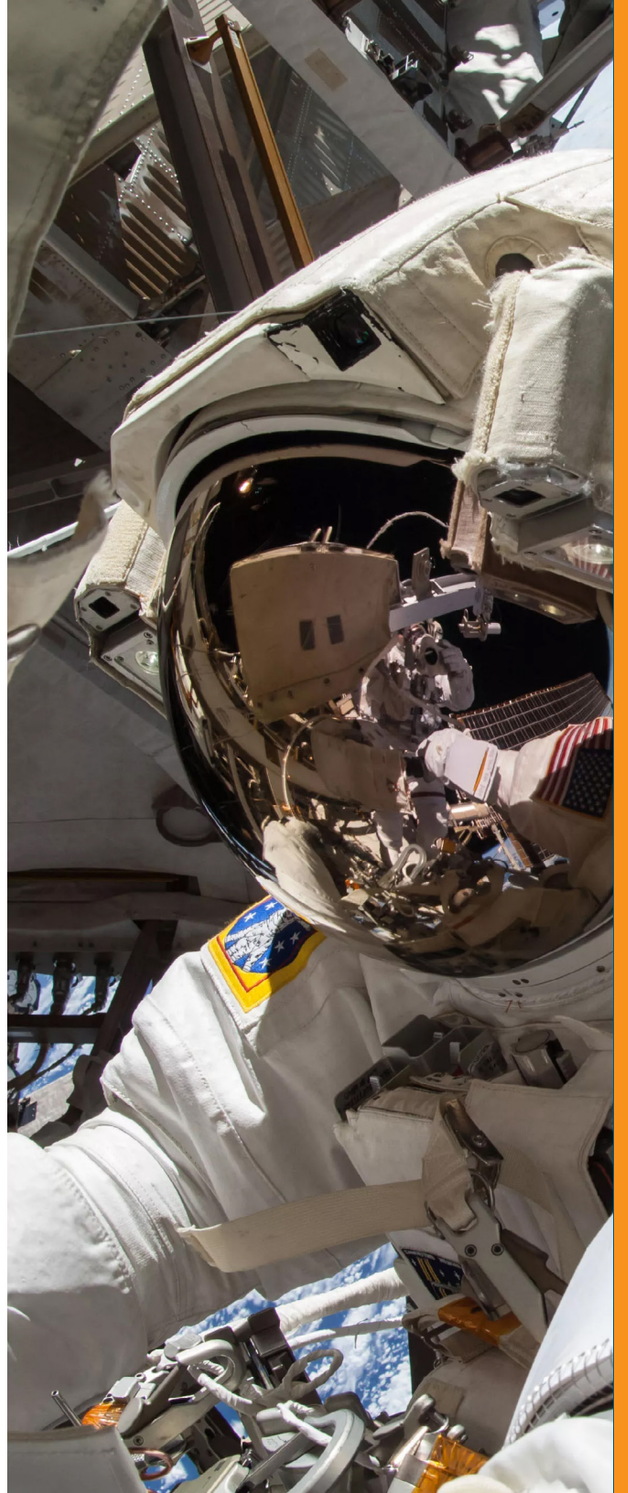


TICKLE COLLEGE OF ENGINEERING

DEPARTMENT OF MECHANICAL, AEROSPACE & BIOMEDICAL ENGINEERING

414 Dougherty • 1512 Middle Drive. • Knoxville, TN 37996-2210
Ph: 865-974-9376
mabe.utk.edu mabeinfo@utk.edu @UTKMABE UTMABE

All UT Mechanical, Aerospace, and Biomedical Engineering undergraduate degree programs are accredited by the Engineering Accreditation Commission of ABET (http://www.abet.org).



AEROSPACE
Undergraduate Program

MECHANICAL, AEROSPACE & BIOMEDICAL ENGINEERING

What is Aerospace Engineering?

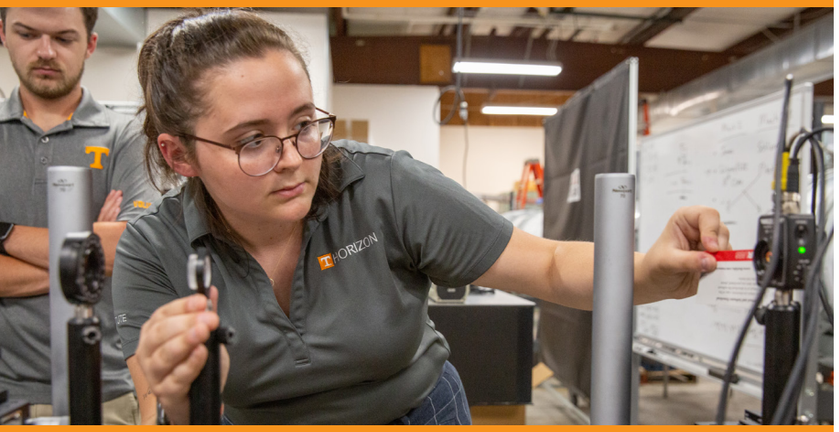
From the smallest drones to the largest NASA rocket, if it flies then aerospace engineering was involved.

Aerospace engineering deals with the design, development, production, testing, and applied research associated with aerospace vehicles, all based on a foundation of math, physics, and science.

In addition to the vehicles themselves, aerospace engineers also work on auxiliary systems like guidance, control, and propulsion.

The four main research thrusts are:

- **Aerodynamics**—the effects of air flowing over vehicle surfaces
- **Propulsion**—the development and testing of jet and rocket engines
- **Orbital mechanics**—the motion of vehicles in space
- **Stability/control**—the design of aircraft or spacecraft guidance systems



A World-Renowned Faculty

Our department has some of the top aerospace engineering faculty in the country, consisting of a diverse group of professionals who are nationally and internationally recognized experts in their fields.

Why Study Aerospace Engineering?

Connections

We have faculty performing key research for NASA, the US Air Force, and Boeing, among many other industry and government partners, giving you opportunities to work with some of the biggest names in the field.

UT Space Institute

Many of our faculty work at the UT Space Institute (UTSI), a graduate education and research institution located in Tullahoma, Tennessee. UTSI is internationally recognized for research in engineering and aviation systems.

Core Research Areas

Our department covers a wide range of disciplines related to the aerospace industry in addition to our main research thrusts. Computational dynamics, fluid mechanics, mission planning, and even the aerodynamics of certain fibers are also options for you to study.

Facilities

We have one of academia's largest wind tunnels, the massive, state-of-the-art facility known as the Tennessee Aerothermodynamics Laboratory, or TALon. We also have a department-specific maker space that hosts an industrial water jet cutter, CNC machines for automated/programmable crafting, and professional-grade polymer and metal (steel) 3D printers.

Interdisciplinary Opportunities

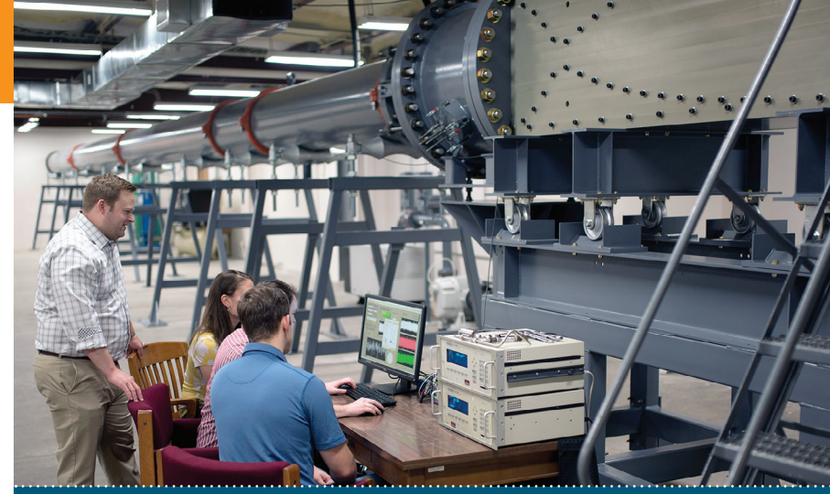
In addition to aerospace engineering courses, our department also hosts biomedical and mechanical engineering programs, allowing students from each of the three distinct disciplines to network and conduct interdisciplinary projects and research together.

Support

Our department has two full-time professional advisors dedicated to our students. These advisors help students set class schedules, make faculty appointments, complete paperwork, connect with internships or co-op experiences, and advise in many other ways to help students make the most of their time at UT.

Internship and Co-op Opportunities

Aerospace engineering students gain experience in manufacturing, testing, and design through internship and co-op opportunities at companies and government agencies such as Arnold Engineering Development Center, Borg Warner Turbosystems, Lockheed-Martin, NASA, Pratt & Whitney, Boeing, and the US Department of Defense.



Student Organizations

The American Institute of Aeronautics and Astronautics student chapter is one of our most active department-specific student groups that you can join for fellowship, learning, and support. The Sigma Gamma Tau Aerospace Engineering Honor Society is also a great organization available to our top aerospace undergraduate students.

Career Readiness

All aerospace undergraduate students complete a senior design project with sponsorship from industrial leaders such as Boeing, Lockheed Martin, the American Institute of Aeronautics and Astronautics, and many other organizations who help prepare our students for the real world and establish job pipelines.

Our graduates have gone on to work at NASA, Pratt and Whitney, Boeing, Lockheed Martin, and SpaceX, with nine NASA astronauts in our alumni ranks who have spent a collective 1,000+ days in space.

Other typical employers of aerospace engineers include the aircraft industry and both private and government organizations.

Salary Outlook

Recent employment surveys have shown that the average starting salary for an aerospace engineer is around $84,000.

Not sure what you want to do?

Pay us a visit. There's no better way to get a feel for who we are and what we do than by meeting our students, faculty, and staff, and seeing our campus and lab spaces for yourself. Email **mabeinfo@utk.edu** for more information or to set up a tour.