#### **Clubs & Organizations**

Students develop practical skills outside the classroom and are empowered to form their own clubs. Examples include:

- Aerospace Engineering Student Advisory Board
- > American Institute of Aeronautics and Astronautics
- > Embry-Riddle Future Space Explorers and Developers Society
- > National Society of Black Engineers
- Sigma Gamma Tau (national aerospace engineering honor society)
- > Society of Women Engineers
- > Tau Beta Pi (national engineering honor society)

#### **Career Outlook**

Embry-Riddle is known throughout the aviation and aerospace industry as a top provider of hands-on, pragmatic education, producing engineers who are ready to solve real-world problems. Graduates regularly attract job offers from commercial aircraft companies, aircraft engine companies, airlines, spacecraft and launch firms, NASA and the Department of Defense. Alumni job titles include:

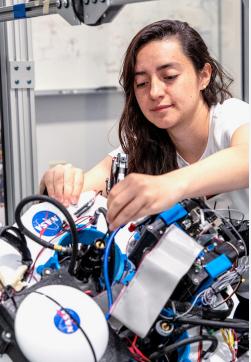
- > Aircraft or Spacecraft Designer
- > Inspector and Compliance Officer
- > Military Aerospace Engineer
- > Mission and Payload Specialist
- > Test Engineer





of Aerospace Engineering bachelor's degree graduates are employed, continuing their education, or serving in the military within 12 months of graduation.

2020-21 Alumni Survey





Largest Aerospace Engineering Program in the Nation

### **Honors Program**

Over 12% of Aerospace Engineering undergraduate students are part of the university's Honors Program. This highly selective program offers enriched educational opportunities inside and outside the classroom. The program enrolls top students who are committed to positive and tangible change while developing their communication, analytical, research and problem-solving skills.

Each year, the Honors Program provides financial support for a limited number of research projects directed by Embry-Riddle faculty.

Learn more at daytonabeach.erau.edu/degrees/honors

#### Apply Now: daytonabeach.erau.edu/admissions/apply

FOR MORE INFORMATION, CONTACT ADMISSIONS Email: daytonabeach@erau.edu Phone: 800.862.2416

#### **VISIT US ONLINE**

daytonabeach.erau.edu/bachelors-aerospace-engineering

#### **EMBRY-RIDDLE** Aeronautical University

## DEPARTMENT OF **AEROSPACE ENGINEERING**

B.S. IN

## Aerospace Engineering



**COLLEGE OF ENGINEERING** *Daytona Beach, Florida* 

Aerospace Engineering students aim high and shoot for the moon. Create a CubeSat that will land on the lunar surface. Stay within the stratosphere with a specially designed supersonic jet engine or test a unique electrically powered aircraft. At Embry-Riddle, students learn how to solve the most complex design challenges across aircraft, jet/rocket engines and spacecraft all while building a professional network to launch successful careers.

#### The Program

The Embry-Riddle Aerospace Engineering Bachelor of Science program is accredited by ABET. Students focus on engineering mission-oriented vehicles through courses in aerodynamics, propulsion, dynamics and control, structures, materials, airplane and jet/ rocket engines and space vehicle design. By joining the nation's largest aerospace engineering program, students attend lectures in state-of-the-art classrooms/laboratories, use the same tools as professional engineers around the world and put their design skills to the test in nationwide competitions. They also work with expert faculty on research projects, amassing knowledge and skills that open doors to careers with companies such as Lockheed Martin, The Boeing Company, Northrop Grumman, Gulfstream, General Electric, Pratt & Whitney, SpaceX, United Launch Alliance and NASA laboratories among many others.

#### The Embry-Riddle Advantage:

Small lecture sizes, cutting-edge laboratories and opportunities to be part of pioneering research programs are just the start. Professors with vast industry and research experience help students develop the technical and leadership skills they need to design aircraft, spacecraft and jet and rocket engines. Recognized globally for its tradition of teaching excellence, the bachelor's program is ranked No. 4 by U.S. News & World Report, and has ranked in the top 10 for the last five years for schools whose highest degree is a doctorate. The campus held the No. 1 spot for 16 consecutive years when previously ranked among non-doctorate schools.



\$81,302

Median Entry-Level Salary for Aerospace Engineers with a **Bachelor's Degree** 

salary.com, 2023

#### **Research Facilities**

Students work with faculty on innovative research programs and may qualify for research funding in their freshman year. They have access to unparalleled facilities such as the Eagle Flight Research Center, Embry-Riddle's flight-testing center, where the world's first direct-drive hybrid gaselectric airplane was invented and built. Additional laboratories include:

- > Advanced Aerospace Materials Laboratory
- > Advanced Dynamics and Control Laboratory
- > Advanced Experimental Aerodynamics Laboratory
- > Astrodynamics and Spacecraft Laboratory
- > Composites Laboratory
- > Gas Turbine Laboratory
- > Lightweight Materials and Structures Laboratory
- > Rocket Laboratory
- > Scanning Electron Microscope Laboratory
- > Space Technology Laboratory
- > Thermal Systems Laboratory
- > Vicon Sensing Laboratory
- > Wind Tunnel Laboratory



#### Aerospace Engineering Bachelor's **Degree Rankings**



#### In The Nation

U.S. News and World Report, 2023

## **TOP RANKED** In the state of Florida



#### **Tracks**

#### **AERONAUTICS**

Focus on aerodynamics, jet propulsion, aircraft performance, flight dynamics and control, subsonic and supersonic flows and overall aircraft design. Wind tunnel experience and a senior capstone project challenge students to design and analyze their own aircraft.

#### **ASTRONAUTICS**

Focus on orbital mechanics, rocket propulsion, spacecraft attitude dynamics and control, and spacecraft design, including lunar landers and high-altitude sounding rockets. Take part in national competitions and engage in design/ build/test projects.

#### JET PROPULSION

Focus on jet engines - including turbojets, turbofans and ramjet aerospace vehicles. This track emphasizes the design and operation of jet engines, thermodynamics, heat transfer and combustion. Students design an entire jet engine, including sizing, cycle studies and detailed component design.

# 230 **MILES PER HOUR**

Our advanced subsonic wind tunnel can deliver flow speeds of up to 230 mph.



daytonabeach.erau.edu/ bachelors-aerospace-engineering

At the end of their sophomore year, students customize their degree by choosing one of four areas of concentration:

#### **ROCKET PROPULSION**

Focus on space propulsion systems liquid, solid, hybrid and electromagnetic rocket engine systems and cycles. This track emphasizes the fundamentals of heat transfer, combustion, engine component design techniques and state-of-the-art computational simulation.

#### **Advanced Degree Opportunities**

At the end of their junior year, students have the option of applying for an accelerated master's degree program or a combined option in Business Administration, Human Factors or Airworthiness Engineering. Most accelerated students enroll in the Master of Science in Aerospace Engineering and some continue with a Ph.D. in Aerospace Engineering. **Embry-Riddle's Daytona Beach** Campus offers combined and accelerated degree programs that allow well-qualified students the chance to begin graduate work in a master's program while finishing their bachelor's degree. Our graduate programs are ranked 25th in the nation by U.S. News and World Report and continue climbing.