

# PURDUE UNIVERSITY

SCHOOL OF AVIATION AND TRANSPORTATION TECHNOLOGY



**P** PURDUE  
UNIVERSITY



# Hello,

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The School of Aviation and Transportation Technology is widely recognized as a world-class institution dedicated to preparing the next generation of leaders who are technically proficient, ethically charged, and socially committed.

What makes our school world-class? It's our faculty, facilities, and student outcomes. Our faculty are recognized experts in their fields. They have rich industry experience, a strong publication record, and a long list of prestigious awards. Most importantly, they are fully dedicated to your success. Our facilities are designed to provide you with a full range of interactive learning experiences — from small general aviation aircraft to turbine (jet) aircraft, from mobile computing to fully immersive simulations, and from active learning spaces on campus to mind-blowing industry internships around the world. Say goodbye to boring lectures and hello to a state-of-the-art active learning experience.

Purdue University is the only Big 10 institution offering undergraduate and graduate programs in aviation and transportation technology. We offer undergraduate specializations in aeronautical engineering technology, aviation management, professional flight, and unmanned aerial systems. We also offer graduate programs at both master's and Ph.D. levels. We are among the top five public universities in the nation<sup>1</sup> and we are 12th in the world among universities granted U.S. utility patents.<sup>2</sup> Come learn from the best.

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<sup>1</sup>The Wall Street Journal / Times Higher Education, September 2017

<sup>2</sup>National Academy of Inventors / Intellectual Property Owners Association, June 2017

Airplanes are complex engineering marvels, designed and built by individuals from many different disciplines. A degree in aeronautical engineering technology will provide you with the skills and knowledge to create and maintain these machines and to improve the quality of life for those who depend on and use them. Over the course of the program, you will learn how to design, manufacture, maintain, operate, and support a wide variety of aerospace vehicles. You will learn many topics in the program, including applied aeronautical structures and materials, electrical systems, powerplants, vehicle systems, and design. With a Bachelor of Science degree in aeronautical engineering technology, you will have the option to take the Airframe and Powerplant Certification exam. The A&P certificate is issued by the Federal Aviation Administration, and it will allow you to conduct, inspect, and supervise aircraft maintenance activities. Many employers look for this additional qualification during the hiring process.

Purdue's bachelor's degree in professional flight provides a broader perspective of the aviation industry. Your classes will range from how an airplane is built to decision-making in the airline industry. Later, you may have opportunities to gain valuable experience flying Purdue administrators on official University business. Purdue University is one of the select universities where you can qualify for a Restricted-Airline Transport Pilot (R-ATP) certificate with 1,000 flight hours. Otherwise, pilots who want to be first officers for an airline must complete 1,500 hours of flight time. Flight times are assigned each semester. Students must hold an FAA Medical and Student Pilot certificates before classes begin. Find a medical examiner in your area: [www.faa.gov/pilots/amelocator](http://www.faa.gov/pilots/amelocator). We encourage students to apply for the First Class Medical; however, we will accept a Second or Third Class Medical.



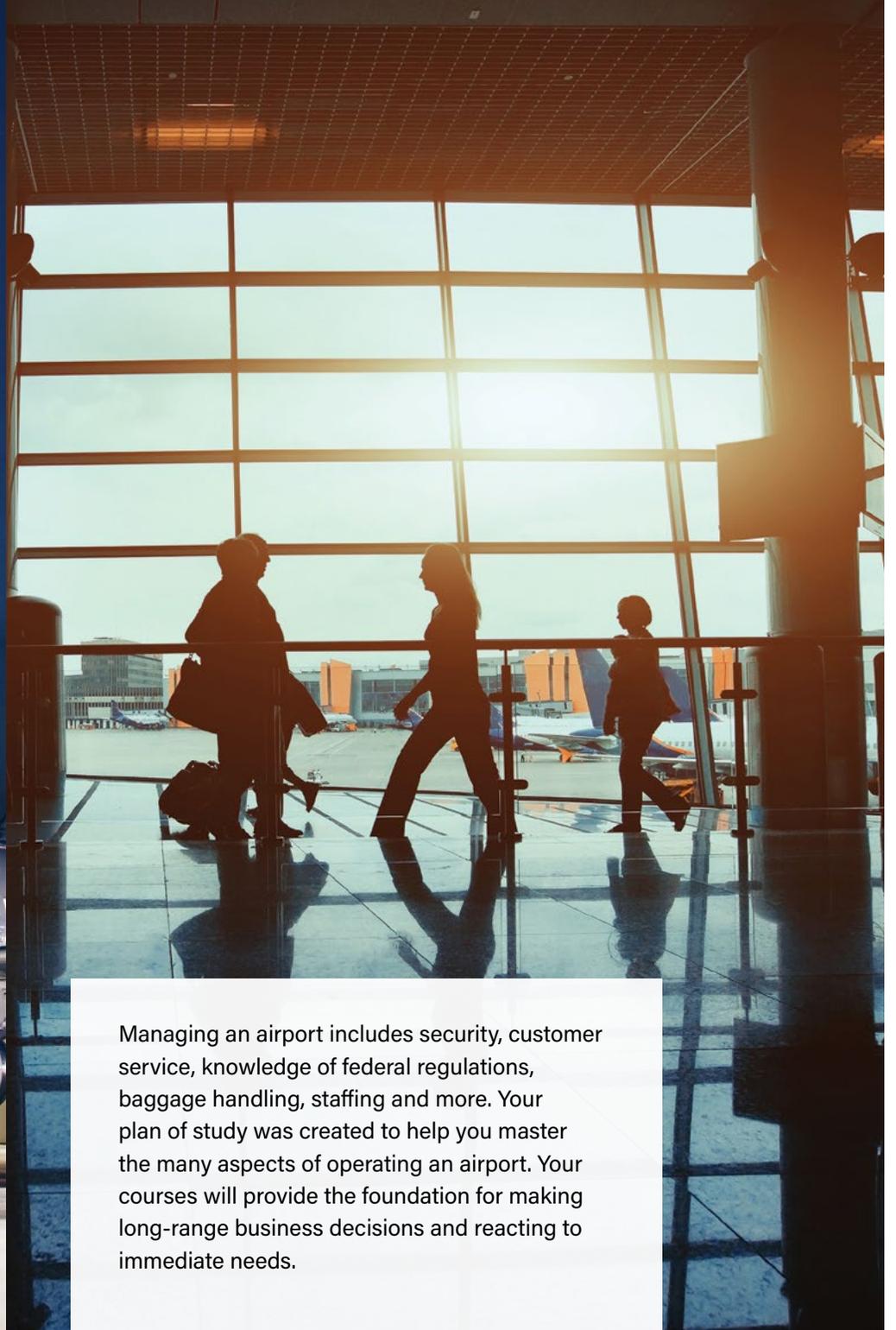
While thousands of airplanes navigate the world's skies on a daily basis, operations on the ground — including airports, airlines, air traffic control facilities, and more — help ensure passenger safety, efficient logistics, and healthy business practices. To fill these roles, the industry requires knowledgeable individuals with excellent critical thinking skills. Academic courses and industry internships will help you gain the knowledge and skills to be an important asset within the complex aviation industry.

Drones, or unmanned aircraft, are rapidly becoming a part of everyday life. Companies that adopt this technology will need experts to help them navigate flight paths as well as rules and regulations. In fact, the Association for Unmanned Vehicle Systems International believes 100,000 new jobs will be created in the United States by 2025 through the integration of unmanned aerial systems into the airspace system.<sup>1</sup> You will learn about the different aircraft, how they are built, and how they work. You will explore how they fit into the larger aviation system, including safety policies and regulations.

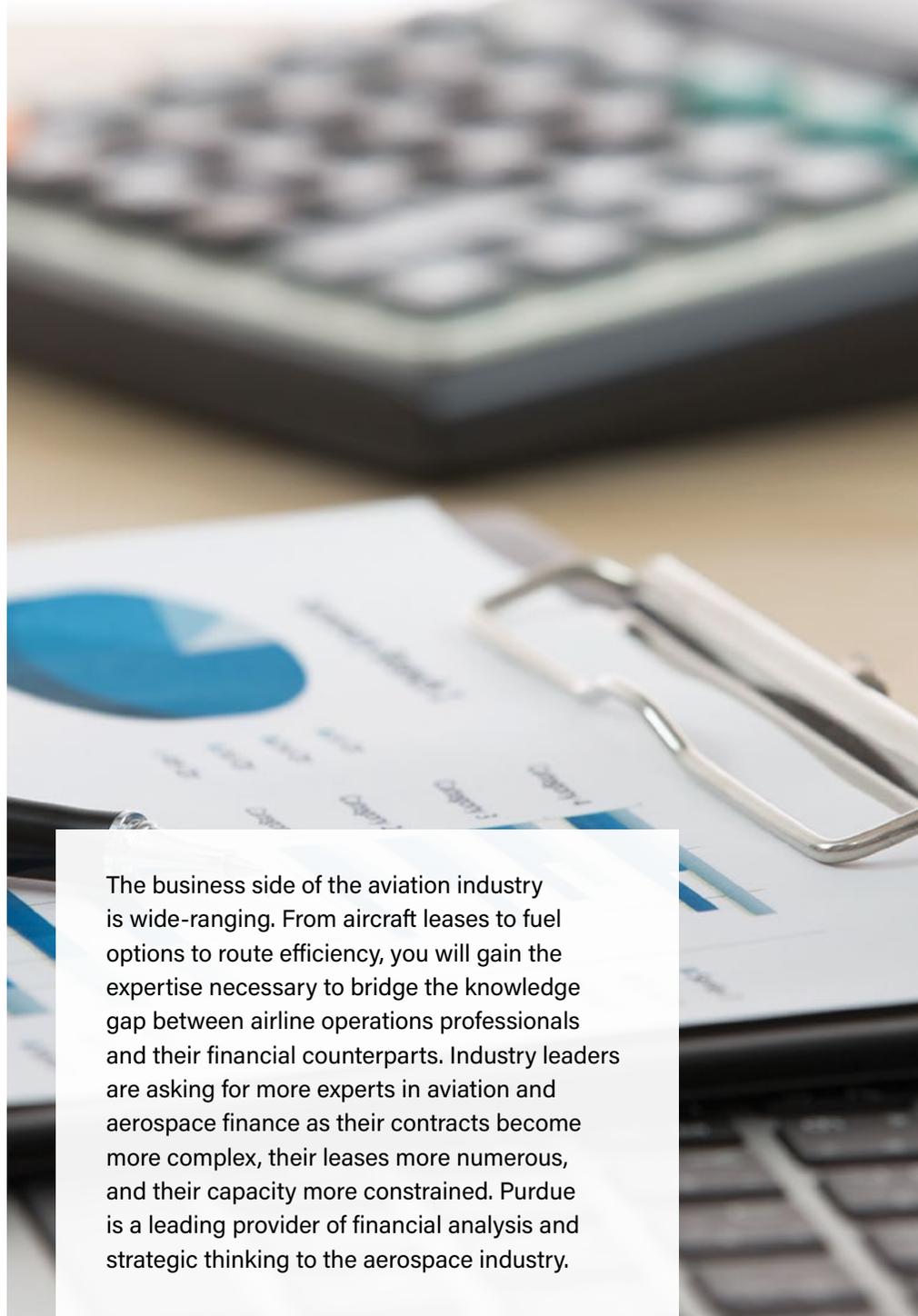
<sup>1</sup> [www.auvsi.org/our-impact/economic-report](http://www.auvsi.org/our-impact/economic-report)



Managing an airline includes scheduling, planning networks, aircraft maintenance, staffing, customer service, and more. You will gain the expertise necessary to navigate these aspects of managing an airline. With more than 100 daily flights in our flight program, you will have the center seat to our state-of-the-art Operations Control Center (OCC). The OCC is built to represent a similar central command center at most airlines, allowing you to monitor flights and overall system performance and to make timely recommendations for operational enhancements.



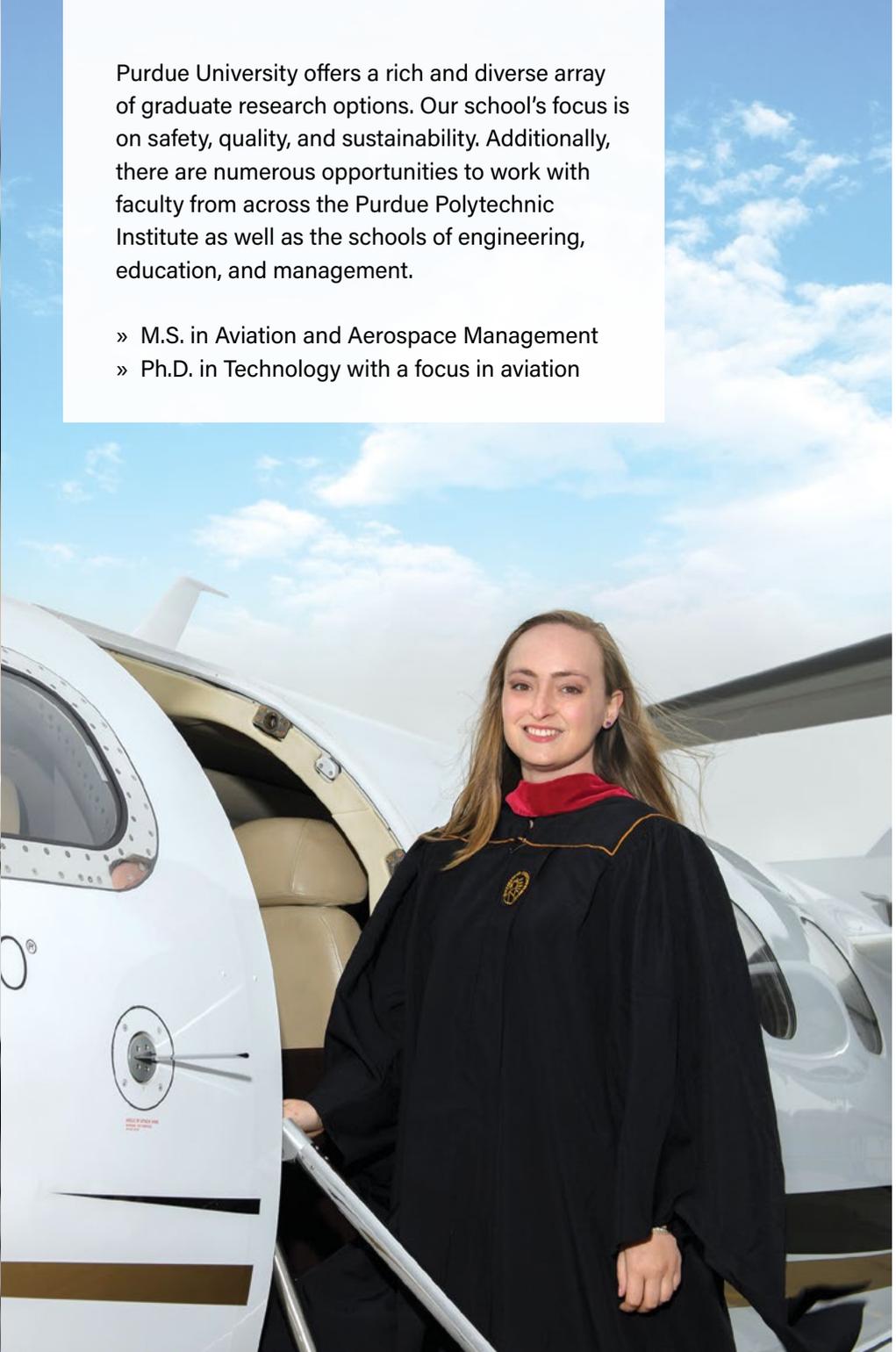
Managing an airport includes security, customer service, knowledge of federal regulations, baggage handling, staffing and more. Your plan of study was created to help you master the many aspects of operating an airport. Your courses will provide the foundation for making long-range business decisions and reacting to immediate needs.



The business side of the aviation industry is wide-ranging. From aircraft leases to fuel options to route efficiency, you will gain the expertise necessary to bridge the knowledge gap between airline operations professionals and their financial counterparts. Industry leaders are asking for more experts in aviation and aerospace finance as their contracts become more complex, their leases more numerous, and their capacity more constrained. Purdue is a leading provider of financial analysis and strategic thinking to the aerospace industry.

Purdue University offers a rich and diverse array of graduate research options. Our school's focus is on safety, quality, and sustainability. Additionally, there are numerous opportunities to work with faculty from across the Purdue Polytechnic Institute as well as the schools of engineering, education, and management.

- » M.S. in Aviation and Aerospace Management
- » Ph.D. in Technology with a focus in aviation





- » M.S. in residence or completely online
- » Ph.D. in residence
- » Undergraduate and graduate students have the opportunity to conduct research in safety, quality, and sustainability. Specific topics include human factors and organizational culture, workforce development and STEM education, and alternative fuels and emissions.
- » Participate in over 1000 student organizations.
- » Present your research and capstone projects at national and international conferences.
- » Join the 410,000-strong Boilermaker family!

- » Alpha Eta Rho
- » American Association of Airport Executives
- » Women in Aviation
- » Purdue Professional Pilots
- » Purdue Flight Team
- » Aviation Graduate Council
- » Leadership & Entrepreneurship in Aviation at Purdue (LEAP)
- » Global Aviation Leadership Association (GALA)
- » Aeronautical Technology Engineering and Maintenance (ATEaM)
- » Society of Black Leaders in Aviation
- » National Gay Pilots Association



“ I’m involved with AAAE (Aviation Association of Airport Executives). They have trips to see behind the scenes at airports (South Bend, Indianapolis).”

TYLER HOUSHOLDER  
AVIATION MANAGEMENT



OUR ALUMNI

*MOVE THE WORLD FORWARD*

AT ALL DIFFERENT LEVELS IN

*COMPANIES ACROSS THE WORLD*

TO MENTION A FEW:

- » American Airlines
- » Bell Helicopter Textron Inc.
- » Boeing Company
- » Caterpillar Incorporated
- » Cessna Aircraft Company
- » Continental Airlines
- » Cummins, Inc.
- » Delta Air Lines Inc.
- » Eli Lilly and Company
- » Federal Aviation Administration
- » FedEx Corporation
- » GE Aviation
- » General Electric Company
- » General Motors Company
- » Honeywell
- » Jet Blue Airways
- » Lockheed Martin Corporation
- » Northrop Grumman Corporation
- » Numerous international aviation/aerospace companies
- » Piedmont Airlines
- » Pratt & Whitney
- » Republic Airways
- » Rolls-Royce Corporation
- » Southwest Airlines
- » Textron Inc.
- » UAL Corporation
- » United Airlines
- » United Parcel Service Inc.
- » United States Air Force
- » United States Army
- » United States Coast Guard
- » United States Marine Corp
- » United States Navy
- » US Airways



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