

# Top 7 Online Aerospace Engineering Degrees



To keep pace with the growth in commercial aircraft production and global military spending, the global aerospace and defense (A&D) industries are expected to continue their growth trajectory in the coming years. According to Deloitte's 2019 Global Aerospace and Defense Outlook, more than 38,000 aircraft are expected to be produced worldwide over the next 20 years. Aerospace engineers are well-placed to take up roles in one of the most in-demand industries in the world today. For engineers who are looking for a career shift or trying to increase their chances

of landing higher positions, an aerospace engineering Master's degree may be the golden ticket. Enrolling full time can be an issue for some though. That is why, enrolling at top universities with online aerospace engineering degrees can be a good option.

## 1. Georgia Institute of Technology

Georgia Institute of Technology (Georgia Tech) is a research university committed to the improvement of the human condition through science and technology. It is a top-ranked college that provides technologically-focused education in the fields of engineering, computing, science, business, design, and liberal arts. Georgia Tech's College of Engineering consistently ranks among the US' top engineering schools and is known as a global leader and innovator.

Its Daniel Guggenheim School of Aerospace Engineering ranked as the #1 aerospace engineering school in the world according to the Shanghai Ranking of World Universities. Their online aerospace engineering degrees for Master of Science in Aerospace Engineering option gives its students the same training and learning as those who get the degree on campus. Courses follow the Georgia Tech Academic Calendar, allowing students to work on assignments during hours that work best for them but within the required time frame. Some of the available courses include turbulent flows, rotary wind aerodynamics, electro-optics, and robotics.

## 2. Johns Hopkins University

Johns Hopkins University is a research university with campuses in Baltimore, Maryland, and Washington, D.C. It is the country's first research university and prides itself on being a leader in federal research and development funding since 1979 through its Applied Physics Laboratory.

The university is proud of its history, having launched the fields of water purification and genetic engineering. It also authenticated the dead sea scrolls.

Its Whiting School of Engineering is a global leader in innovation and research. It is home to award-winning faculties, including some awarded with NSF CAREER Awards, DARPA Young Faculty Awards, and Office of Naval Research Young Investigator Awards. The college offers an online aerospace engineering degrees with a Master of Science in Space Systems Engineering that aims to equip students with the tools to become technical leaders within the aerospace industry. Students are required to complete a total of 10 courses within 5 years. Some of the courses offered are satellite communication systems, space mission formulation, spacecraft propulsion, modern navigation systems, and physics of remote sensing.

### 3. University of Alabama

Founded in 1831, the University of Alabama (UA) is the state's oldest public college. It was established under the statutory mandates and authorizations of the constitution. The university is often referred to as the 'The Capstone' for being the top stone or highest point of the Alabama public school system.

UA was the first university in the state to offer engineering classes, starting in 1838. Its college of engineering has more honors students in engineering than any other single college in the state. The college of engineering has been offering distance and online aerospace engineering degrees for MS degrees in Aerospace Engineering and Mechanics for more than 20 years. Students are required to complete a total of 30 credit hours with either a non-thesis or thesis option. Some of the courses that can be taken are orbital mechanics, continuum mechanics, the theory of elasticity, and intermediate fluid mechanics.

### 4. University of Colorado-Boulder

The University of Colorado-Boulder (CU Boulder) is a public research institution that has developed 229 energy and clean technologies since 2006. Its annual economic impact on the state economy amounts to \$3.85 billion. It has over 200 campus and community organizations that take part in the 'Be Involved Fair'. The College of Engineering and Applied Science was founded in 1893 and ranks among the top engineering schools in the nation.

CU Boulder's Ann and H.J. Smead Aerospace Engineering Sciences Department is internationally recognized for its research and education leadership in earth- and space-sciences as well as in aerospace engineering. The online aerospace engineering degrees program in Aerospace Engineering is a 2-year program with two options: thesis and non-thesis. Some of the focus areas are aerodynamics and satellite navigation systems, autonomous systems, and bioastronautics.

## 5. University of Florida

University of Florida (UF) is a top-ranked public research university entrusted with land, sea, and space grants. UF attracts over \$700 million in research every year, and 2/3 of the research funding comes from the federal government. The UF Herbert Wertheim College of Engineering is home to one of the most dynamic and biggest engineering programs in the country. It is the largest professional school, the second-largest college, and among the top three research units in the university.

The department of mechanical and aerospace engineering is an internationally recognized group that conducts exciting research and offers both undergraduate and graduate programs. Its online aerospace engineering degrees program offers a Master's of Science in Aerospace Engineering which requires the completion of 30 credit hours for both thesis and non-thesis options. Some of the available courses are analytical dynamics, finite element analysis and application, and continuum mechanics.

## 6. University of New South Wales

University of New South Wales (UNSW Sydney) is one of Australia's leading research and teaching universities. It prides itself on being the most comprehensive research-intensive university in Australia with a 7,000-strong research community. The UNSW engineering faculty works in partnership with several industries and organizations for projects and research. These include Intel, Kimberly-Clark, Boeing, Rockwell Collins, and the Australian Department of Defence.

The UNSW Sydney's Master of Space Engineering is an online aerospace engineering Master's program designed to develop a high-level understanding of engineering principles and practices related to space systems. It can be completed in 1 year by full-time students and requires the completion of 48 units of credit. Some of the courses that can be taken are space operations, global navigation satellite systems, space systems engineering management, and satellite communications.

## 7. University of Washington

University of Washington (UW) is one of the world's preeminent public research universities. It confers over 12,000 Bachelor's, Master's, and Doctoral degrees annually. Its college of engineering has a solid 117 years of engineering innovation and has awarded \$11.5 million in student scholarships. UW is a proud contributor to the economic growth of the numerous startups launched each year by UW students and faculty.

Its online aerospace engineering degrees for Master of Aerospace Engineering is a technical engineering degree that requires applicants to have a minimum GPA of 3.0 to be eligible for admission. The Master's program is a terminal coursework-only degree that can be completed part-time in 3 years. Areas of concentration include controls, fluids, structures, and composites.