

# Aerospace Engineering

Graduate study in aerospace engineering provides qualified students with opportunities to further their education with advanced courses, as well as to exercise and sharpen skills developed as part of their undergraduate training. The Department of Aerospace Engineering offers programs of study leading to the Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees. The master's degree program is the most popular among online students.

Admission to the graduate program as an online student is limited to students having an undergraduate degree in aerospace or mechanical engineering from an institution of recognized standing. Degrees in other disciplines are generally not suitable for advanced study through the online program, but exceptions will be considered on a case-by-case basis.

Earning a degree through the online program will require a graduate student to take courses in a broad range of aerospace engineering courses, which may include aerodynamics, computational fluid dynamics, flight dynamics and control, orbital mechanics, propulsion, structures, and structural dynamics. Interdisciplinary study in other engineering departments and in engineering-related fields such as physics, mathematics, and computer science is also possible. Flexibility exists for each student to plan his/her individual program of study.

## Requirements for Master of Science Degree

- ▶ All applicants must submit GRE scores for the General Test and TOEFL scores for international applicants
- ▶ There is no residency, foreign language or minor requirements for this degree
- ▶ 33 semester credit hours of graduate (6000 and 7000 level) course work that must include 18 credit hours of AERO 6000 level or higher courses, such as:

AERO 6336 Applied Orbital Mechanics	3 hours
AERO 6526 Rocket Propulsion	3 hours
AERO 6536 Space Propulsion	3 hours
AERO 6626 Dynamic Simulation	3 hours
AERO 6636 Aerospace Applications of Composite Materials	4 hours
AERO 6756 Legal Aspects of Engineering Practice	3 hours
AERO 7106 Advanced Supersonic Aerodynamics	3 hours
AERO 7126 Dynamics of Viscous Fluids I	3 hours
AERO 7136 Dynamics of Viscous Fluids I	3 hours
AERO 7206 Dynamics of Flight	3 hours
AERO 7216 Flight Dynamics of Hypervelocity Vehicles	3 hours
AERO 7226 Spacecraft Attitude Dynamics and Control	3 hours
AERO 7336 Orbit Determination	3 hours
AERO 7376 Fundamentals of the Global Positioning System	3 hours
AERO 7516 Thrust Generation	3 hours
AERO 7526 Advanced Airbreathing Propulsion	3 hours
AERO 7536 Aereothermochemistry of Propulsion	3 hours
AERO 7626 Aerospace Computational Structural Analysis: Static Structures	3 hours

AERO 7636 Aerospace Computational Structural Analysis: Structural Dynamics	3 hours
AERO 7666 Aerolasticity	3 hours
AERO 7676 Introduction to Large Space Structures	3 hours
AERO 7890 Aerospace Engineering Project	3 hours

- ▶ Must pass an on-campus graded presentation examination during their last semester of study

### **Application Procedures**

- ▶ Fill out the online graduate application at [app.applyyourself.com/?id=auburn-g](http://app.applyyourself.com/?id=auburn-g) (you will be required to create an account)
- ▶ Upload a brief statement discussing your research interest for graduate school and your current career goals
- ▶ Upload your resume
- ▶ For more information visit [grad.auburn.edu](http://grad.auburn.edu)

[www.eng.auburn.edu/aero](http://www.eng.auburn.edu/aero)