

AEROSPACE ENGINEERING



The Auburn Advantage

Solid academics and a campus with a strong sense of place make Auburn special. Our alumni recall a friendly, safe campus with a sense of family, caring professors, academic variety and challenge, and extracurricular activities that helped them grow into leaders.

- Outstanding instruction
- Hands-on lab projects
- Research opportunities
- Co-op education and internships
- Scholarship opportunities
- Mentoring
- Academic support
- Diversified faculty and student body
- Job search assistance
- Variety of career opportunities
- Résumé service for alumni
- Classic college town atmosphere

Contact Us

AE Program Coordinator
Department of Aerospace Engineering
211 Aerospace Engineering Building
Auburn University, AL 36849
334.844.4874
ae_advisor@eng.auburn.edu
www.eng.auburn.edu/ae

www.auburn.edu/student_info



GINN COLLEGE OF
ENGINEERING

Auburn University
www.auburn.edu

Auburn University is an equal opportunity educational institution/employer.
2005-001-AE

WWW.ENG.AUBURN.EDU

AUBURN UNIVERSITY

Aerospace engineers
are advancing the state of the art in aerospace systems, incorporating innovations such as adaptive aerostructures, integrated aerospace vehicle design, wireless communication and digital simulation



Veteran astronaut James Voss,
class of 1972
International Space Station
Expedition 2
Five space shuttle flights,
201 days in space
Twenty-two hours, 35 minutes
of extravehicular activity (EVA)
Associate dean for external affairs,
member of aerospace
engineering faculty



Veteran astronaut T.K. (Ken) Mattingly,
class of 1958
Apollo 16 command module pilot
Commander of STS-4 Columbia
and STS 51-C Discovery
7,200 hours of flight time,
504 hours in space
One hour, 13 minutes of EVA

At a Glance

Aerospace engineers are involved with the conception, design, development and production of vehicles for flight both in and beyond the atmosphere. Aerospace engineers apply their knowledge of aerodynamics, propulsion, structures, dynamics, control, and performance to a wide variety of problems encountered in the design of a major aerospace vehicle or system. The starting salary range for Auburn aerospace engineers is \$50,000s to \$60,000s.

Aerospace Engineering

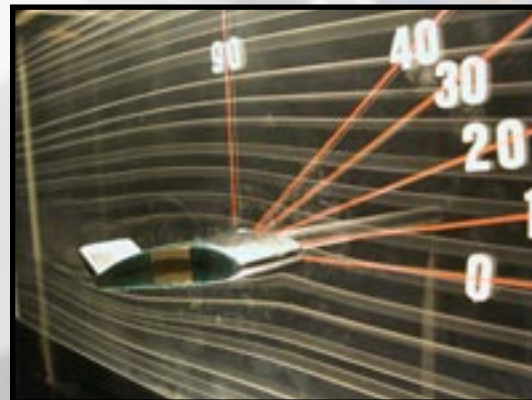
Auburn University's Department of Aerospace Engineering, one of nine departments in the Samuel Ginn College of Engineering, was established in 1942. Its origins lie with a decision by the Wright brothers to establish a winter flying school near Montgomery, Alabama in 1910. That fall, the local newspaper announced instruction of "aeronautic construction and the principles of aviation" at Alabama Polytechnic Institute — now Auburn University.



Undergraduate Curriculum

- Bachelor of Aerospace Engineering

Auburn University offers a modern aerospace engineering program administered by a faculty with extensive experience in teaching, research and industry. The first two years of the program are devoted to developing a solid foundation in mathematics, physics, chemistry and the basic engineering sciences. Computer programming is introduced early so that students may use this valuable engineering tool in subsequent courses.



In the third year, fundamental concepts are applied to the study of practical problems in aerodynamics, aerospace structures and materials, performance, and flight dynamics. Fourth year studies include vehicle stability and control, propulsion, and vibration and flutter. Fourth year students also undertake a comprehensive design sequence involving the preliminary design of an aerospace vehicle or major vehicle component.



Research Areas

The Department of Aerospace Engineering conducts research activities in areas such as:

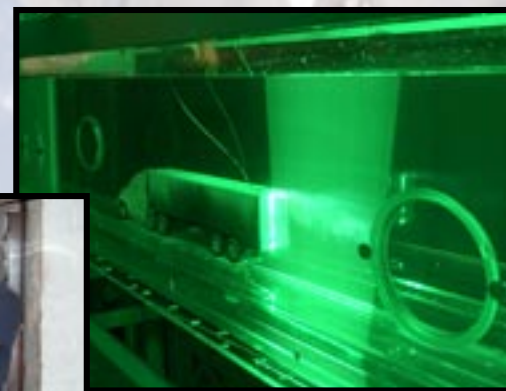
- Composite materials and adaptive aerostructures
- Experimental aerodynamics and computational fluid dynamics
- Nonintrusive flow diagnostics and vortex dynamics
- Numerical structural analysis and experimental mechanics
- Manned and unmanned aircraft flight dynamics and control
- Spacecraft guidance and control
- Missile design using genetic algorithms
- Spacecraft orbit determination and remote sensing
- Solid, liquid and hybrid propulsion systems



Laboratory Facilities

Our instructional and research facilities provide our students with the hands-on experience necessary for a practical and comprehensive education in aerospace engineering. Some of the facilities employed in our instructional program include:

- Two large test section subsonic wind tunnels
- Two supersonic tunnels for Mach numbers from 1.5 to 3.5
- Thirty-foot water tunnel that can be operated in both open surface and closed surface modes
- Composite materials laboratory for construction of composite components
- Fully instrumented, small, turbine propulsion system
- Thirty-node/60 processor Linux cluster for computational fluid dynamics analysis



Extracurricular Opportunities

Auburn Engineering students can participate in a wide variety of educational activities beyond the classroom, gaining experience with teamwork and project management. In the Society of Automotive Engineers Aero Design competition, the Auburn University Flying Tigers conceive, design, fabricate, and test a radio-controlled unmanned aerial vehicle that has the ability to take off and land at full cargo capacity. The 2004 team placed first out of 35 teams and second out of 44 teams in the Aero Design East and West competitions, respectively.

Aerospace engineering students are encouraged to participate in campus organizations such as:

- Sigma Gamma Tau national honor society
- American Institute of Aeronautics and Astronautics
- Cupola Engineering Society
- Society of Women Engineers
- National Society of Black Engineers



www.eng.auburn.edu/organizations

Advising/Support Services

To ensure progress toward completion of degree requirements, an engineering advisor, the department academic advisor, and department undergraduate program officer are available to discuss and advise on curriculum choices and requirements.

Auburn Engineering is committed to helping students succeed. The following services are available at no cost:

- Study Partners mentoring program
- MentorNet e-mentoring network
- College of Engineering tutoring program
- BellSouth Minority Engineering Program tutors

Scholarships/Financial Assistance

Loan and grant opportunities are available, including:

- Pell grants
- Guaranteed student loans
- Research internships with professors
- Birdsong study abroad scholarships
- Departmental scholarships

As students progress, the number of available scholarships and grants increases. Although some consideration is given to financial need, most scholarship awards are based on academic achievement.

www.auburn.edu/student_info/student_affairs/finaid

