The Trajectory

A flight path for prospective students.







Aerospace Engineering and Engineering Mechanics

Get Connected

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Building on the achievements of the last 100 years of aviation, the field of aerospace engineering continues to develop better, safer and more efficient options for military, commercial and civilian travel through both aircraft and spacecraft systems.

Aerospace engineers benefit from an interdisciplinary education that offers a diverse choice of career paths. Advances in aerospace engineering research have changed our lives in everything from medical improvements, such as artificial limbs and invisible braces, to everyday conveniences, such as clean-burning engines, plasma displays, and shock-absorbing footwear, to improving our environment using energy obtained from the wind. The possibilities are unlimited with ideas that stretch across the universe—in aerospace engineering, the sky is no longer the limit.

Frequently Asked Questions

What is the projected job market for Aerospace Engineering?

Aerospace engineers are expected to have 10 percent growth in employment over the projections decade, about as fast as the average for all occupations. Increases in the number and scope of military aerospace projects likely will generate new jobs. In addition, new technologies expected to be used on commercial aircraft produced during the next decade should spur demand for aerospace engineers. The employment outlook for aerospace engineers appears favorable. The number of degrees granted in aerospace engineering has declined for many years because of a perceived lack of opportunities in this field. Although this trend has reversed, new graduates continue to be needed to replace aerospace engineers who retire or leave the occupation for other reasons.

(Source: Department of Labor: http://www.bls.gov/oco/ocos027.htm)

What jobs are available to Aerospace Engineers?

The field of aerospace technology offers a wide range of employment opportunities to those with the proper educational background. An aerospace team is made up of engineers, scientists, and technicians. Positions are available through the private sector as well as within the U. S. Government. Examples of major roles in the aerospace industry include:

- Analysis
- Design
- Materials and Processes
- Systems Engineering
- Software Development
- Manufacturing
- Flight Research
- Field Service

(Sources: NASA and AIAA)

How will my classes from other institutions transfer in to UT?

To check for transfer equivalencies, you will need to visit the Automated Transfer Equivalency website (http://www.utexas.edu/student/admissions/ate/). If you attended a college or university within the State of Texas, you will be able to use a database for immediate equivalencies. If your institution was out-of-state, you will need to contact the Office of Admissions.

Are there any programs for exceptional students?

The Engineering Honors Program (http://www.engr.utexas.edu/undergraduate/services/honors) enables academically exceptional students to enroll in special sections of classes taught by outstanding faculty members. Information can be obtained by calling (512) 471-4321.

What kinds of student organizations exist on campus for engineering students?

The comprehensive list of Engineering Student Organizations can be found at: http://www.engr.utexas.edu/studentlife/learn The University also offers over 900 undergraduate student organizations to join: http://deanofstudents.utexas.edu/sald/studentorgs/

How do I get admitted to UT and specifically, Aerospace Engineering?

Neither the Department of Aerospace Engineering and Engineering Mechanics nor the Cockrell School of Engineering has input on the admission decisions for students entering The University of Texas at Austin for the first time. Please visit http://bealonghorn.utexas.edu/ for information.

Student Projects and Organizations

Longhorn Rocket Association

- Launch model and amateur rockets
- Provides a hands-on opportunity in the design process of rockets
- Gather data to optimize launch altitude, range, and power

Lockheed Martin Air System Design Laboratory

Unmanned Aerial Vehicles (UAVs)

- Design autonomous UAVs to perform complex missions
- Take an idea from concept to operations

Women in Aerospace Leadership Development Group

Photos courtesy of Tara Haelle

- Facilitate development of leadership skills for women that will carry them through their careers as an engineer.
- Attract and retain more women by making group activities fun, exciting, and ultimately helpful in achieving long-range career goals.

Design, Build, Fly Competition (DBF)

- Design an aircraft from scratch to accomplish challenging missions
- Build and fly the aircraft
- Opportunity for international competition and travel
- Gain engineering design team work experience

Student Projects and Organizations

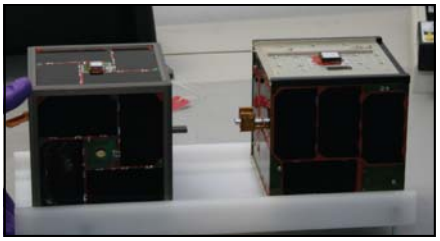
Satellite Design Laboratory

FASTRAC

- Formation Autonomy Spacecraft with Thrust, Relay, Attitude, and Crosslink
- Nanosatellite pair designed and integrated by students

PARADIGM

- **P**latform for **A**utonomous **R**endezvous **A**nd **D**ocking with **I**nnovative **G**N&C **M**aneuvers
- Collect two orbits of position data from a NASA GPS receiver and downlink the data to the ground

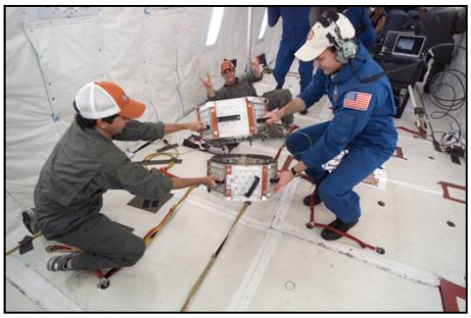


Texas 2-STEP

- **2-S**atellite **T**argeting **E**xperimental **P**latform
- Nanosatellite to perform autonomous, on-orbit, proximity operations

Microgravity Experiments

- Form a design team and create an experiment
- Write a proposal to NASA
- Flight test the experiment in microgravity



Satellite Ground Control Center

- Control and track satellites
- Gain spacecraft operations experience
- Manage University of Texas spacecraft

Co-Operative Education

What is Co-op?

"Co-op" is shorthand for the Cooperative Engineering Education Program. The Co-op Program provides engineering students an opportunity to explore the real world of engineering while they are still in school.

Why Co-op?

Through participation in the Co-op Program, you can:

- Enhance your education by applying engineering knowledge to practical work experience.
- Gain experience under a practicing engineering in work related to your field of study.
- Meet, network, and work with future colleagues to learn about the engineering profession.
- Earn a salary that exceeds typical student expectations.
- Increase your marketability for a permanent position upon graduation.
- Earn two or three hours of technical elective credit.

A co-op position differs from an internship in several ways:

- Co-op is an academic program for which you register and earn course credit.
- Because you work up to a year with the same company, you gain increased responsibility and tackle more challenging projects.

$60,000

Average starting salary of 2011 ASE grads

$63,389

Average starting salary with co-op experience

Co-opportunities in ASE

Study Abroad Opportunities

http://www.engr.utexas.edu/undergraduate/iee

http://www.utexas.edu/student/abroad

Increasingly, companies actively recruit students with cross-cultural experience to join their teams. In today's global marketplace you will likely be working in another country or with someone from another country.

By studying abroad, you prove to potential employers you have the ability to step outside your comfort zone and succeed, you are adaptable, patient and can assume a leadership role with ease.

And, of course, you get to travel. When you study abroad, you are not just taking pictures of the top tourist destinations. You are living in a community, getting to know the culture of your host country. Living and learning in another country is a once-in-a-lifetime opportunity.

Maymester in Lille, France
Summer in Toulouse, France
Summer in London, England
Summer in Cordoba, Argentina
Summer in Santander, Spain
Spring Semester in Toulouse, France
Semester in Singapore
Semester in Melbourne, Australia
Semester in Perth, Australia
Spring/Fall Semester in Sheffield, England
Spring Semester in Delft, The Netherlands

Credit-By-Exam Applicability

Placement Exam	Minimum Score*	UT Course*	ASE Degree Applicability
AP: Art History IB: Art History	4 4	ARH 302	Visual and Performing Arts Elective
AP: Chemistry IB: Chemistry	4 6	CH 301, CH 302	CH 301 counts, but 302 will not be used toward ASE degree
AP: Economics (Micro) AP: Economics (Macro) IB: Economics	4 4 4	ECO 304K ECO 304L ECO 304K, ECO 304L	Social Science Elective
AP: English (Language) SAT: Verbal Section ACT: Writing	3 600 26	RHE 306	Freshman English
AP: English (Literature) IB: English Language	4 4	E 316K	Sophomore Literature
AP: Human Geography IB: Geography	3 4	GRG 305	Social Science Elective
AP: Government		GOV 310L	Student must take the UT Austin Test on Texas Government to receive credit for one of two government requirements
AP: History (United States)	4	HIS 315K, HIS 315L	Both American History requirements
IB: Latin	4	C C 302	Visual and Performing Arts Elective
AP: Mathematics (AB) AP: Mathematics (BC) IB: Mathematics (HL)	5 3-4 5	M 408C	First of two-semester Calculus sequence
AP: Mathematics (BC)	5	M 408K, M 408L	First and second of three-semester Calculus sequence
AP: Music Theory	4	MUS 606A	Visual and Performing Arts Elective
IB: Music (HL)	4	MUS 303M	Visual and Performing Arts Elective
AP: Physics C: Mechanics	3	PHY 303K, PHY 103M	First Physics
AP: Physics C: Elec/Mag	3	PHY 303L, PHY 103N	Second Physics
AP: Psychology IB: Psychology	4 4	PSY 301	Social Science Elective
IB: Social and Cultural Anthropology	4	ANT 302	Social Science Elective
IB: Theatre Arts	4	T D 301	Visual and Performing Arts Elective

* Policies are subject to change.

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