EDUCATION. INNOVATION. IMPACT.

Facts and Figures for a College on the Rise

COLLEGE OF ENGINEERING

THE UNIVERSITY OF TEXAS AT ARLINGTON
In the most current U.S. News and World Report rankings for undergraduate institutions that offer a doctoral degree, UTA came in at No. 105 nationally. The graduate program was No. 82. Our ranked graduate programs are aerospace engineering at No. 39; industrial, manufacturing, and systems engineering at No. 58; materials science and engineering at No. 72; computer engineering at No. 75; mechanical engineering at No. 78; electrical/electronic engineering at No. 82; civil engineering at No. 87; and computer science at No. 90.

UTA ranks No. 2 on U.S. News & World Report’s “Least Debt, Class of 2015” list, which includes loans taken out by students from the colleges themselves; from financial institutions; and from federal, state, and local governments.

In fall 2016, the College of Engineering experienced a record enrollment of 7,248 students, an increase of more than 42 percent from fall 2013. Among these were 3,987 undergraduate students and 3,261 graduate students.

UTA ranks No. 20 on the Military Times 2017 “Best for Vets: Colleges” list, the highest of any four-year Texas university. The University has nearly 3,000 student veterans or their dependents among its nearly 57,000 students around the world.

The College comprises seven academic departments: bioengineering; civil engineering; computer science and engineering; electrical engineering; industrial, manufacturing, and systems engineering; materials science and engineering; and mechanical and aerospace engineering.

The University broke ground on the Science and Engineering Innovation and Research Building, to help meet increasing student demand and to further the University’s emerging concentration in health science initiatives, including bioengineering and engineering-related healthcare research. The 200,000 square foot building is expected to open in 2018.

UTA was recently ranked as the fifth-most-diverse university in the United States and is a Hispanic-serving institution. In addition to being ethnically diverse, 45 percent of our engineering students come from countries other than the U.S. Female students represent nearly 20 percent of total enrollment.
The faculty boasts two members of the National Academy of Engineering; nine fellows of the National Academy of Inventors, including four charter fellows; and 44 fellows of 32 professional organizations.

Students have enjoyed success in national and international competitions. Computer Science and Engineering teams have won several hackathons in the past year. A team of undergraduate students won a robotics programming challenge at the IEEE International Conference on Robotics and Automation in 2014. Undergraduate teams won the $10,000 first prize in the AT&T coding contest in both 2012 and 2013, and a multi-disciplinary group of students from UTA, UT Southwestern, and UT Dallas won the Global Health competition at Emory University in 2014. UTA civil engineering teams took first and second places, respectively, at the ASCE Geonstitute’s national competition in 2015.

UTA is classified as a Research 1 University – Highest Research Activity by the Carnegie Foundation for the Advancement of Teaching, based largely on the efforts of the College of Engineering.

Since 2011, UTA faculty and students have had 103 National Science Foundation proposals funded, including approximately $9 million in 2015-16.

Total research expenditures in the College of Engineering surpassed $31 million in 2015-16, the highest total in the College’s history. University-wide engineering-related expenditures were more than $45 million.

UTA has dominated the Formula SAE circuit for more than 30 years, earning championships on four continents (North America, Europe, Asia and Australia). The team was No. 5 in the world in a 2014 ranking compiled by Formula Student Germany e.V.

Six faculty members have earned UT System awards since 2010 for excellence in teaching, underscoring the college’s commitment to learning as well as research.

Four engineering faculty garnered National Science Foundation CAREER Awards in 2015-16, the College’s most ever in one year.

In recent years, our students have won many national awards, including the Barry M. Goldwater Award, Amelia Earhart Fellowship, Boeing/Flightglobal Undergraduate of the Year, Sharon D. Banks Memorial Undergraduate Scholarship, NSF Graduate Research Fellowship, and more.

Boeing engineering professor and chair Michael Cho is studying how shockwaves cause brain damage and working to determine for the first time in real time the mechanisms that cause the injury.

Materials Science and Engineering professor Perena Gouma has developed an inexpensive, portable device that can diagnose the flu with a single exhale.

Andrew Makeev, professor in the Mechanical and Aerospace Engineering Department, has teamed with Sikorsky to design more durable materials and better implement them in composite aircraft.

Heng Huang, a professor in the Computer Science and Engineering Department, is using big-data analytics to study everything from genomics to depression to identifying predictors of Alzheimer’s disease.

Researchers in the Civil Engineering Department and UTA’s College of Architecture, Planning and Public Affairs are leading a National Science Foundation-funded University Transportation Center to create sustainable megacities. The Civil Engineering Department is a partner in two other UTCs.

Yaowu Hao, an associate professor in the Materials Science and Engineering Department, is battling cancer from the inside out with less damage to healthy tissue by injecting radioactive nanoseeds into tumors.

Aerospace engineering associate professor Luca Maddalena is building the country’s only university-based, arc-heated, hypersonic-testing facility to study the complex interaction between flows and thermal protection materials or heat shields.

D.J. Seo, associate professor in the Civil Engineering Department, is integrating data from advanced weather radar systems, innovative wireless sensors and crowdsourcing of data via cell phone applications to create high-resolution modeling of urban water run-off.
The University of Texas at Arlington is a Carnegie Research-1 “highest research activity” institution. With a projected global enrollment of close to 57,000, UTA is one of the largest institutions in The University of Texas System. Guided by its Strategic Plan 2020 Bold Solutions | Global Impact, UTA fosters interdisciplinary research within four broad themes: health and the human condition, sustainable urban communities, global environmental impact, and data-driven discovery. UTA was recently cited by U.S. News & World Report as having the second-lowest average student debt among U.S. universities. U.S. News & World Report also ranks UTA fifth in the nation for undergraduate diversity. The University is a Hispanic-Serving Institution and is ranked as the top four-year college in Texas for veterans on Military Times’ 2017 Best for Vets list.