

College of Engineering



A green light to greatness.®

COLLEGE OF
ENGINEERING



Making a real-world impact

At the University of North Texas, our student-focused philosophy, world class faculty and exceptional research facilities will give you the freedom to pursue your goals and achieve them. With state-of-the-art labs and equipment housed in our 300-acre Discovery Park, UNT's College of Engineering offers you a unique environment to learn, conduct research and connect with your peers and faculty mentors.

The College of Engineering offers 10 bachelor's, 7 master's and 2 doctoral degree programs that will provide you with hands-on, project-based study that will prepare you to make a difference in the real world.

If you're eager to make an impact, the light is green at the UNT College of Engineering.



Discovery Park is home to UNT's College of Engineering students. The 300-acre facility houses labs, classrooms, study spaces and advising offices.



“The College of Engineering brings in guest lecturers, hosts social events, and supports engineering student organizations. The classes are small, so you feel comfortable asking questions and standing out.”

Mallory Smith
Computer Science
student

UNT College of Engineering offers:

- Extraordinary lab facilities such as the Zero Energy Laboratory, the Computational Epidemiology Research Laboratory and the Laboratory for Recreational Computing.
- An opportunity to make the world a better, more energy efficient place through study in the Department of Mechanical and Energy Engineering, the first of its kind in the nation.
- An active network of 19 engineering student organizations.
- Access to research grant funding.
- A remarkable legacy. UNT's Department of Computer Science and Engineering is one of the oldest in the country, celebrating more than 40 years of excellence.

Exceptional research facilities

So you can explore further



2 Students work with a LENS750 system, which uses a high-powered laser to rapidly manufacture metal components directly from powders.

UNT's College of Engineering students are preparing to solve many of today's problems through hands-on learning in cutting edge facilities and labs. Students work with some of the most modern equipment in the nation.

Center for Advanced Research and Technology

The CART facility is one of the most sophisticated of its kind for research involving materials synthesis and analysis, from atomic to macro scales.

Computational Epidemiology Research Laboratory

CERL's primary focus is the application of computational concepts to problems related to public health. Work at the laboratory will provide tools to epidemiologists and scientists that can be used in the prediction and analysis of how disease manifests and spreads.

Laboratory for Recreational Computing

For 20 years, LARC has been performing cutting-edge research in game programming and procedural content generation by students in the Game Development Group.

Nanofabrication Cleanroom Facility

The College of Engineering's newly constructed cleanroom has 3,000 square feet of clean space for nano and micro device development and thin film techniques.

Zero Energy Laboratory

The only one of its kind in Texas, the Zero Energy Laboratory is used to test various energy technologies that aim to achieve a net-zero consumption of energy.



“I'm amazed by the amount of support I receive working in Dr. Jaehyung Ju's lab. I'm a transfer student and the engineering professors here are much more open and approachable than at my last school.”

Frank Lima
*Mechanical and Energy
Engineering student*

Committed, caring faculty

Supporting your success



Find out how our faculty researchers and their students are changing the world.
engineerthefuture.unt.edu/faculty

College of Engineering faculty are advancing the frontiers of knowledge and improving the quality of life through their research. Highly esteemed in their fields, our professors also are highly approachable, as teachers and mentors.

You'll have an opportunity to conduct research alongside our renowned faculty including:

Dr. Nandika D'Souza

Dr. D'Souza and her team of researchers are discovering how to harness the unique chemical properties of plants, bacteria and various bioagents to achieve ecologically safe, green solutions for consumer and industry products that will outperform and replace their non-renewable counterparts.

Dr. Ram Dantu

With the help of a National Science Foundation grant, Dr. Dantu has developed a new 9-1-1 software system using smart phone technology, helping operators gather the most accurate information to better prepare first responders. The software monitors breathing and vital signs by placing a smart phone on the victim's chest.

Dr. Rodney Nielsen

Dr. Nielsen's research areas of natural language processing and machine learning have led to his development of Companionbots – stuffed animals that can assist the elderly and isolated in need of special care and allow seniors to maintain their independence and continue to live in their homes.



Engaged and approachable faculty mentors encourage you every step of the way. Dr. Renee Bryce helps Computer Science students in her Software Testing Lab examine new techniques that may help software testers more effectively identify defects.

Bachelor's degree programs

Learn how the world works



The College of Engineering offers you a variety of degree options in disciplines from theoretical to practical. You'll get hands-on experience before you graduate, with valuable access to research opportunities in your field.

B.S. programs:

- Biomedical Engineering
- Computer Engineering
- Computer Science
- Electrical Engineering
- Materials Science and Engineering
- Mechanical and Energy Engineering

B.S.E.T. programs:

- Construction Engineering Technology
- Electrical Engineering Technology
- Mechanical Engineering Technology

B.A. program:

- Information Technology

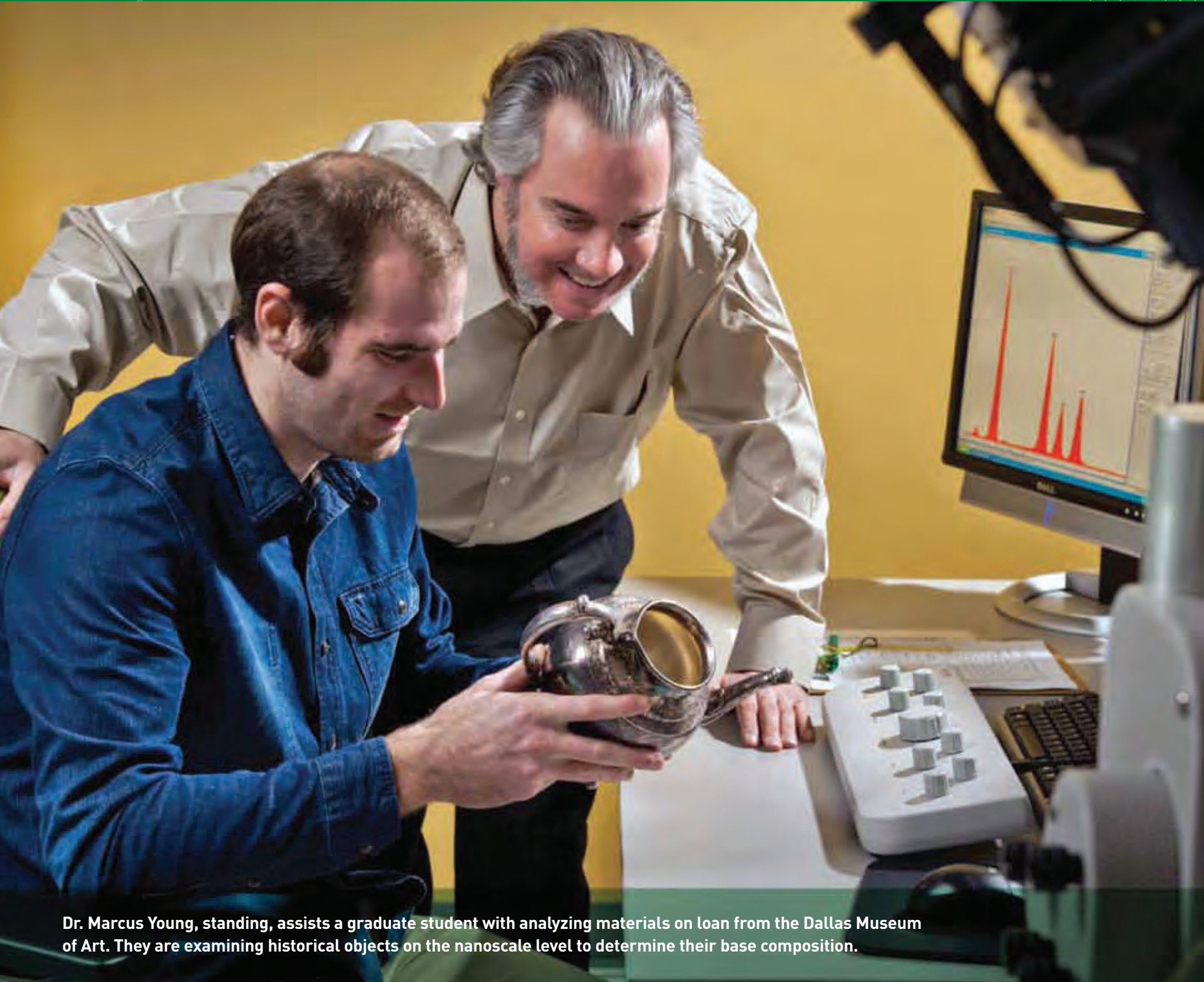


“Because of the instruction and help I received at UNT, I’m graduating with a job lined up at a major technology company. For me, that’s the bottom line.”

Zach Morgan
Computer Science
student

Graduate degree programs

Discovering new frontiers



Dr. Marcus Young, standing, assists a graduate student with analyzing materials on loan from the Dallas Museum of Art. They are examining historical objects on the nanoscale level to determine their base composition.



“The Graduate Workshops available at UNT provide opportunities to grow some of the soft skills that are expected of graduate students, such as presentation and writing skills.”

Jessica Rimsza
Materials Science and Engineering Ph.D. candidate

M.S. programs:

- Biomedical Engineering
- Computer Engineering
- Computer Science
- Electrical Engineering
- Engineering Technology
- Materials Science and Engineering
- Mechanical and Energy Engineering

Ph.D. programs:

- Computer Science and Engineering
- Materials Science and Engineering
- Mechanical and Energy Engineering

Investing in your future

At a time when other universities downsized their research efforts, UNT invested in collaborative and multi-disciplinary research clusters. This provides you with opportunities to get involved with emerging technologies equipment found nowhere else in the region.

Paying for college

The best is within your reach



Learn more about how UNT can help you afford college.
engineerthefuture.unt.edu/paying-for-college

UNT provides a traditional college experience and the quality of a private university at an affordable cost. We've been named one of *America's 100 Best College Buys*® for 18 consecutive years, a ranking based on having a high-achieving freshman class and affordable tuition.

Texas residents can take 15 undergraduate semester credit hours for two semesters for \$9,105 in 2013-14 (\$19,725 for non-residents), plus fees related to instruction. Room and board is \$7,356.

By the numbers

About 78 percent of UNT students receive financial aid and scholarships totaling more than \$320 million annually. This includes more than \$36 million in scholarships. To receive first consideration, submit the FAFSA (Free Application for Federal Student Aid) before UNT's March 15 financial aid priority deadline. The application deadline for scholarships is March 1.

Types of assistance:

Scholarships – funds awarded based on merit and/or need; no repayment required

Grants – funds awarded based on need; no repayment required

Loans – funds that must be repaid at some point

Student employment – 3,000 jobs on campus and 8,500 off campus



UNT offers a Certificate in Game Programming and has been named by *GamePro* magazine and *The Princeton Review* as one of the top institutions in North America to study game design.

Finding success with your degree

The path to greatness



When you graduate from the College of Engineering, you'll have the hands-on experience employers need, like alumna Lettie Haynes, assistant vice president of technology services at Burlington Northern Santa Fe Railway.

UNT is located in Denton, a city of 122,000 people 40 miles north of Dallas-Fort Worth, one of the nation's largest metropolitan areas. Our growing region is rich in internship opportunities and has the second highest concentration of Fortune 500 companies in the U.S.

CNN Money ranked Denton County as one of the nation's Top 10 best places to live for job potential.

Representatives from national and multinational businesses regularly recruit on campus, post jobs, interview students, attend career fairs and networking events and speak to classes. Among the 1,000 companies that visit are: AT&T, Bell Helicopter, Ericsson, Luminant, Oncor Electric, Schlumberger, Texas Instruments and Weber/Zodiac.

Notable alumni of the UNT College of Engineering include:

Jay Chenault ('84), *president and CEO of Custom Computer Cables of America*

Etta Clark ('80), *director of information technology at PepsiCo*

Chris Pearce ('90), *distinguished engineer at Cisco Systems*

Mohamad Sakr ('88), *CEO of Inovas Company*

Nergis Soylemez-Sayed ('06), *quality engineer at Texas Health Presbyterian Hospital Denton*

Larry Sullivan ('92), *director of engineering at Microsoft*

Elbert "Gene" Tindall ('74), *CEO of Electric Energy Corp*

Tom Weger ('88), *president and CEO of Coppell Construction*

Jason West ('96), *founder of the Call of Duty video game franchise*

Visit engineerthefuture.unt.edu/alums for more notable College of Engineering alumni.

Take the next steps for your success

Visit the UNT campus

engineerthefuture.unt.edu/tour or 940-565-4104

Join us for a student-led tour of UNT's main campus and Discovery Park

Apply for admission

engineerthefuture.unt.edu/admissions

For more information on the UNT College of Engineering:
940-565-4300

About UNT

A student-focused public research university, UNT has been named a best university by *Forbes* and is the largest, most comprehensive in the Dallas-Fort Worth area. With excellent academics and distinguished faculty, we are the green light to greatness for 36,000 students. We offer 97 bachelor's, 81 master's and 35 doctoral degree programs.



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Front Cover: The Mean Green Racing Team's Formula SAE car, built from the ground up by UNT engineering students, competes in races across the country.

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