



# 2023-24 FACT SHEET



Civil and environmental engineers are world-changers — making the world safer, more productive and more enjoyable. The Zachry Department of Civil and Environmental Engineering develops creative and innovative thinkers. Our faculty and students are involved in research that enhances the built and natural world. We address aging infrastructure, climate change, clean water and natural disasters. We enhance the resilience of communities and examine supply chain processes. We conduct innovative research that benefits the public good.

## ENROLLMENT

(Fall 2023 – Texas A&M Data and Research Services)

<b>UNDERGRADUATE</b> (excluding freshmen)	<b>868</b>
<b>MASTER'S</b>	<b>184</b>
<b>DOCTORAL</b>	<b>186</b>

## DEGREES AWARDED

(AY 2022-23)

<b>BACHELOR'S</b>	<b>277</b>
<b>MASTER'S</b>	<b>153</b>
<b>DOCTORAL</b>	<b>29</b>

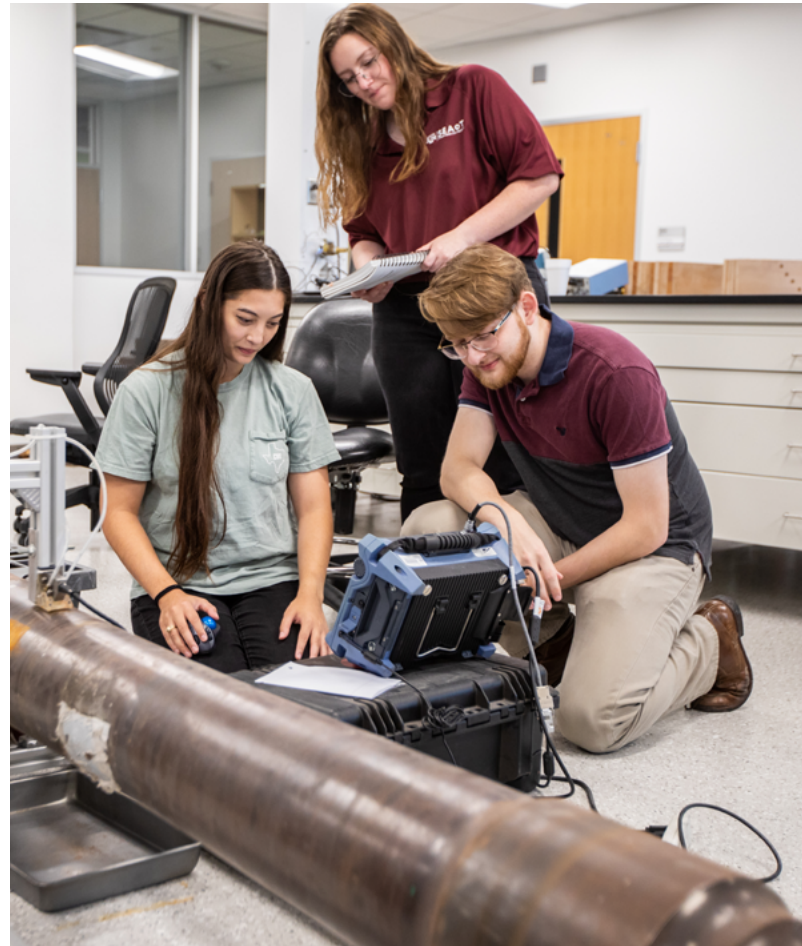
## FACULTY

<b>Total Faculty</b>	<b>76</b>
Professors	<b>30</b>
Associate Professors	<b>15</b>
Assistant Professors	<b>6</b>
Academic Professional Track	<b>25</b>

## RANKINGS

(U.S. News & World Report, Public)

**6<sup>th</sup>** Undergraduate (2024)  
**9<sup>th</sup>** Graduate (2024)





## OUR IMPACT

### Enhanced Resilience

Our researchers are leading a hub of five institutions across the country to conduct fundamental research to support holistic decision-making for historically underrepresented communities impacted by coastal hazards.

### Cleaner Water

Using sophisticated microscopy and computational analysis, our researchers validated the merit of a water purification technology that uses electricity to remove and deactivate an assortment of waterborne viruses.

### Cleaner Food

Our researchers have used machine learning to evaluate the salient properties of metallic nanoparticles that make them more susceptible to plant uptake and indicate how many of these nanoparticles accumulate in their roots and shoots.

### Cleaner Air

Joining the global effort to curb air pollution, our researchers developed computational tools to accurately assess the footprint of certain organic atmospheric pollutants. The simulation can help government agencies watch for human-made sources of carbon-based pollutants.

### Greener Building

Our researchers are developing 3D printed new resilient buildings using hempcrete, which has the potential to lower the environmental impact of traditional construction methods and make housing more affordable and available.

### Better Evaporation Modeling

Our researchers created the global lake evaporation volume dataset that leverages modeling and remote sensing to provide the first long-term monthly time series for 1.42 million individual natural lakes and artificial reservoirs worldwide.

### Faster Disaster Recovery

By using big data, researchers have developed a framework to assess the recovery of communities after natural disasters in near-real time. The information gleaned from their analysis would help federal agencies allocate resources equitably among communities ailing from a disaster.

### Safer Travel

Comparing the safest and shortest routes between five metropolitan areas in Texas, including more than 29,000 road segments, our researchers found that taking the shortest route with an 8% reduction in travel time could increase the risk of being in a crash by 23%.

## RESEARCH AREAS

- Artificial intelligence and data science
- Automation in civil infrastructure
- Coastal engineering
- Construction engineering and management
- Environmental engineering
- Future cities
- Geotechnical engineering
- Materials engineering
- Sustainable and resilient natural and built environments
- Structural engineering
- Transportation engineering
- Water resources engineering



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