

# Graduate Studies in CAEE

## Department of Civil, Architectural and Environmental Engineering

### VISION

A Department of Civil, Architectural and Environmental Engineering (CAEE) recognized worldwide for excellence in engineering education, creation of knowledge, and leadership in professional and public service.

### MISSION

The mission of the Department of Civil, Architectural and Environmental Engineering encompasses excellence in undergraduate and graduate education, research, and public service. We will

- educate the next generation of engineering leaders to formulate and solve complex problems of importance to society, to collaborate as productive team members, to engage in life-long learning, and to act professionally and ethically;

- extend engineering knowledge across the breadth of the discipline and beyond through creative, innovative research ranging from the fundamental to the applied;

- facilitate the understanding and use of new ideas, technologies, and practices for the betterment of society through service and leadership in local, state, national, and international communities.

### RANKINGS

In the 2012 edition of *U.S. News and World Report* our graduate program in civil engineering was ranked third in the nation, and our environmental and water resources program was ranked fourth. UT's Cockrell School of Engineering ranked 8th best overall in graduate quality.

### FACULTY

The department's outstanding faculty are involved in both teaching and research, and they are recognized nationally and internationally as leaders in their indi-

vidual fields. Over seventy individual faculty, adjuncts, lecturers and assistant instructors make up the teaching staff of the department. Fourteen faculty are members of the National Academy of Engineering (NAE), five of whom are actively teaching. NAE was established in 1964, and election to membership is the engineering profession's highest distinction.

### ORGANIZED RESEARCH UNITS

Organized research units play a major role in civil engineering graduate studies at The University of Texas at Austin. Research conducted at these experimental facilities, comparable to any in the United States, provide many students with graduate assistantships on continuing research projects.

At the **Phil M. Ferguson Structural Engineering Laboratory**, large segments of bridges, buildings, and offshore structures can be studied under dynamic and static loads resulting from winds, waves, earthquakes or vehicular traffic. <http://www.utexas.edu/research/fsel/>

The facilities at the **Center for Transportation Research** support investigations of polymer reinforced concrete, pavement management, traffic simulation and analysis, and transportation planning and analysis. <http://www.utexas.edu/depts/ctr/>

Facilities at the **Center for Research in Water Resources** and the Center for Energy and Environmental Resources are used to research pollutant transport, air and water quality management, air and water pollution control, experimental hydraulic analysis, reservoir management, flood forecasting, geographic information systems, hazardous waste disposal, and energy recovery from municipal and industrial wastes. <http://www.crrw.utexas.edu/>

The **Geotechnical Engineering Center** conducts research to develop an improved understanding of soil and rock structures as related to the design of pile foundations for offshore structures.

These units, together with the **Construction Industry Institute**, which is the focal point of research dealing with all aspects of construction engineering and project management throughout the United States, afford a broad spectrum of research opportunities for faculty and graduate students in all areas of civil engineering as well as many related disciplines. <http://construction-institute.org>

The Phil M. Ferguson Structural Engineering Laboratory and the Center for Research in Water Resources, which together comprise 50,000 square feet of laboratory space, are located at **Pickle Research Center**, a short drive from campus. Regular shuttle bus service is provided between the Center and campus. Other laboratory facilities are located in Ernest Cockrell, Jr. Hall, the ten-story building in which the Department of Civil, Architectural and Environmental Engineering is housed.

Other important focused research activities are in the **Offshore Technology Research Center**, the **Advanced Institute for Transportation Infrastructure Engineering and Management**, and the **Construction Materials Research Group**. The Offshore Technology Research Center was established by the National Science Foundation as a Center of Excellence at Texas A & M University and The University of Texas at Austin. The four main areas of research conducted at the Center are the following: hydrodynamic forces; structural integrity; materials and subsea work; and foundations. The Advanced Institute for Transportation Infrastructure Engineering and Management has the objective of enhancing the quality and quantity of professionals in the transportation engineering field and developing centers of excellence in transportation education. The Institute is multimodal in scope and cross-disciplinary in perspective, addressing the aspects of infrastructure planning and management as well as its technical engineering requirements.

## GRADUATE DEGREE PROGRAMS

The Department of Civil, Architectural and Environmental Engineering offers three Master of Science in Engineering degrees in the following majors: Architectural Engineering, Civil Engineering, Environmental and Water Resources Engineering. The Doctor of Philosophy degree is offered in Civil Engineering. Graduate students may specialize in architectural engineering, building energy and environments, construction engineering and project management, construction materials, environmental and water resources engineering, geotechnical engineering, ocean engineering, structural engineering, or transportation engineering. More information about most of these programs can be found online:

### Architectural Engineering

[www.caee.utexas.edu/dept/area/arch/](http://www.caee.utexas.edu/dept/area/arch/)

### Construction Eng/Project Management

[www.caee.utexas.edu/dept/area/construction/Construction.html](http://www.caee.utexas.edu/dept/area/construction/Construction.html)

### Environmental/Water Resources Engineering

[www.caee.utexas.edu/ewre/](http://www.caee.utexas.edu/ewre/)

### Geotechnical Engineering

[www.caee.utexas.edu/dept/area/geotech/](http://www.caee.utexas.edu/dept/area/geotech/)

### Ocean Engineering

<http://www.caee.utexas.edu/dept/area/ocean/ocean.html>

### Structural Engineering

[www.caee.utexas.edu/dept/area/structures/Structures.html](http://www.caee.utexas.edu/dept/area/structures/Structures.html)

### Transportation Engineering

[www.caee.utexas.edu/dept/area/trans/trans.html](http://www.caee.utexas.edu/dept/area/trans/trans.html)

### Dual Program/LBJ School of Public Affairs

[www.caee.utexas.edu/dept/area/jointProg.html](http://www.caee.utexas.edu/dept/area/jointProg.html)

The M.S. program is flexible and developed through discussions between student and advisor. Students are encouraged to take courses in various technical areas from within as well as outside the department to support their specific areas of interest. Students are provided with the choice of emphasis on design or on research.

The Ph.D. program is developed by the student, the supervising professor, and the supervising committee, and is subject to approval by the department's Committee on Graduate Studies and the Graduate School. The program is designed to meet the student's needs; however the doctoral student is expected to have well-developed

goals. General requirements for the Ph.D. include the following:

- course work in a major and supporting areas;
- a preliminary departmental qualifying examination administered by a committee of three faculty and which must be completed before admission to candidacy;
- a comprehensive/research proposal examination taken near the end of the student's course work;
- completion of acceptable research and the doctoral dissertation; and
- the final oral defense of the dissertation.

The doctoral dissertation must give evidence of ability to perform independent investigation and must provide a contribution to knowledge in the area of specialization. In addition, all Ph.D. candidates must demonstrate their ability to communicate in written English.

## APPLICATION PROCEDURE

When filing your application and when contacting the CAEE Department, it is important to specify the particular area of specialization you wish to pursue. A statement of purpose is required.

## APPLICATION DEADLINES

Official deadlines for application are on the application itself, but the department's preferred deadlines are:

**December 15** for the Fall Semester

**September 1** for the Spring Semester

**December 15** for Summer Semester

**IMPORTANT:** the admission application, official transcripts, GRE scores, and any other required materials should be submitted by these dates in order to be considered for financial aid. All applicants are automatically considered for any form of financial aid. All applicants are expected to apply online at:

<http://www.engr.utexas.edu/graduate/admission/>

Classes at The University of Texas are based on the semester system. Fall classes begin in late August, spring classes in mid-January, and summer classes in early June. The department maintains an active program of courses and research year round. New students may enter the program at the beginning of either long session semester or the summer term.

## STUDENT STATISTICS

### Graduate Enrollment

Our student population reflects the national and international reputation of the University with students from all regional areas of the United States and from 35 countries around the world. The Fall 2011 total graduate enrollment in the department was 430, with 236 students pursuing the M.S. degree, and 194 students pursuing the Ph.D. Women currently make up about 28% of the graduate student population.

### Graduate Degrees

In the 2010-2011 academic year, a total of 160 graduate degrees were awarded in the department. This included: 90 M.S. in Civil Engineering, 34 M.S. in Environmental and Water Resources Engineering, 9 M.S. in Architectural Engineering, and 27 Ph.Ds in Civil Engineering.

## AUSTIN, TEXAS

Situated in the heart of the Texas hill country, the city of Austin combines the technological and cultural advantages of a large city and the casual, friendly atmosphere typical of a small town.

More information about Austin can be found at

<http://www.austinlinks.com/>

<http://www.austin360.com/>

<http://www.ci.austin.tx.us/>

## FOR MORE INFORMATION CONTACT:

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