Doctor of Philosophy in Civil Engineering (BS Entry, Geotechnical)

About This Program

Doctor of Philosophy in Civil Engineering is a research-oriented degree and, as such, requires the candidate to successfully carry out original and independent research in a civil engineering area acceptable to the civil engineering faculty. In addition to research, student's will be required to complete the master's core courses and with the evaluation from the student's PhD advisor and PhD Committee of the student's fundamental knowledge, the remaining required coursework will be determined. A total of nine (9) hours of dissertation courses (CE 6399, 6699, or 6999) must be taken; at least three (3) of those hours must be in the semester of graduation.

Competencies

1. Fundamental Knowledge: graduates will command profound basic and applied knowledge in their specialty area within their Civil Engineering Program (CEP) interest area.
2. Independent Abilities: graduates will have the ability to conduct a major independent and original research study that includes gathering of information, gaining an understanding of the process of academic or commercial exploitation of research results, demonstrating an understanding of contemporary research issues, effective project management, synthesis and evaluation, and appropriate dissemination of research findings
3. Critical Thinking: gaduates will have a profound ability to critique and synthesize literature, review results and to apply knowledge gained from literature to develop new ideas, to design and evaluate scientific investigations, and to assess, interpret and understand data related to their specialty area within their CEP interest area.
4. Advanced Knowledge: graduates will demonstrate profound mastery of the subject matter at a deeper theoretical and applied level well beyond fundamental knowledge gained in the undergraduate course sequence and the higher-level knowledge gained in the master's level course sequence.
5. Effective Communication: graduates will have the ability to construct coherent arguments and articulate ideas clearly to an audience, through a variety of techniques, constructively defend research outcomes, justify their research to the profession and promote the public understanding of their research fields.
6. Professional Development: a student graduating with a doctoral degree in civil engineering is expected to demonstrate interest in pursuing life long learning by attaining professional licenses, and obtaining professional development hours by attendance at conferences, higher educational classes, short courses and seminars, conducting classes, and publishing.

Admissions Criteria

Performance on the GRE will not be the sole criterion for admitting applicants or the primary criterion to deny admission to the program. In cases where GRE performance is relatively poor all other qualifications presented by the applicant will be carefully evaluated for evidence of potential for success.

UNCONDITIONAL ADMISSION

A student must meet the following requirements for unconditional admission:

1. A bachelor's degree in engineering or a closely related field.
2. No specific GPA requirement (application considered as a whole). However, a graduate coursework GPA of 3.5 on a 4.0 scale, as calculated by the Graduate School, is typical of a successful applicant.
3. A minimum score of 158 on the GRE Quantitative section and 148 on the GRE Verbal section is typical of a successful applicant.
4. A minimum score of 79 on the TOEFL iBT, or a minimum score of 6.5 on the IELTS, if English is not the applicant's native language. International applicants who have successfully completed a bachelor's degree from an institution in the United States and are not seeking funding as a Graduate Teaching Assistant are not required to meet this requirement.
5. Favorable letters of recommendation from people familiar with the applicant's academic work and/or professional work.

PROBATIONARY ADMISSION

If applicants do not meet a majority of standards for unconditional admission outlined above, they may be considered for probationary admission after careful examination of their application materials. Probationary admission may require that the applicant receive a B or better in at least their first 9 hours of graduate coursework applicable to their degree being sought at UT Arlington, take additional English courses, and/or deficiency courses as required.

DEFERRED ADMISSION

A deferred application decision may be granted when a file is incomplete or when a denied decision is not appropriate.

DENIAL OF ADMISSION

A candidate may be denied admission if they have less than satisfactory performance on a majority of the admission criteria described above.

Curriculum

Foundations		
CE 5364	FOUNDATION ANALYSIS AND DESIGN	3
CE 5365	THEORETICAL SOIL MECHANICS	3
CE 5370	EXPERIMENTAL SOIL MECHANICS	3
Specialization		
Select 21 hours of advanced coursework in consultation wtih faculty supervisor. Up to 6 hours may be taken outside the department if approved by the faculty supervisor and PhD committee.		21
Research		
Select at least 6 hours from the following:		6
CE 6397	RESEARCH IN CIVIL ENGINEERING	
CE 6697	RESEARCH IN CIVIL ENGINEERING	
CE 6997	RESEARCH IN CIVIL ENGINEERING	
Dissertation		
Select at least 9 hours from the following:		9
CE 6399	DISSERTATION	
CE 6699	DISSERTATION	
CE 6999	DISSERTATION	
CE 7399	DOCTORAL DEGREE COMPLETION	
Total Hours		**45**

Program Completion

Students must maintain a minimum GPA of 3.50 or higher in their PhD Civil Engineering coursework and a 3.25 GPA outside of CE to take the comprehensive examination and to graduate.

Students may apply to receive a master's degree in passing after completing the master's requirements stated in the catalog.

MILESTONES

diagnostic evaluation

PhD students must take the Diagnostic Evaluation after the second semester and no later than after the third semester. The faculty supervisor and PhD committee will recommend if the student is ready to continue their doctoral program.

comprehensive exam

Students can take the Comprehensive Exam after meeting the Diagnostic Evaluation requirements and completing their didactic coursework. Until then, they will register for research courses with guidance from their faculty supervisor and PhD committee. The Comprehensive Exam is used to determine if the student has the necessary background and specialization required for the dissertation research.

dissertation defense

Upon passing the Comprehensive Exam, they will enroll in dissertation credits until they complete their research and defend their dissertation.

Advising Resources

Location:

Nedderman Hall 425

Email:

cegradadvising@uta.edu

Phone:

817-272-2201

Web:

Advisor Information & Scheduling an Appointment