

CIVIL ENGINEERING, PHD

for the degree of Doctor of Philosophy in Civil Engineering

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overview of admissions & requirements: <https://cee.illinois.edu/admissions/graduate/>
overview of grad college admissions & requirements: <https://grad.illinois.edu/admissions/apply>
department website: <https://cee.illinois.edu/>
program website: <https://cee.illinois.edu/academics/graduate-programs/phd-degree-and-curriculum>
department faculty: <https://cee.illinois.edu/directory/faculty>
college website: <https://grainger.illinois.edu/>
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The Department of Civil and Environmental Engineering, consistently ranked as having one of the best graduate programs in the country, offers graduate work leading to master's and doctoral degrees. These are in a variety of specialized areas through departmental programs which are described on this page.

Opportunity exists for specializing in computational science and engineering via the Computational Science & Engineering (<http://catalog.illinois.edu/graduate/engineering/concentration/computational-science-engineering>) optional graduate concentration.

Admission Requirements

The Department of Civil & Environmental Engineering accepts applications for admission to the graduate program for both fall and spring semesters.

Admission to the Graduate College with full status in civil engineering is granted to graduates of accredited institutions whose requirements for the master's degree are substantially equivalent to those of the University of Illinois, provided the applicant's preparation is appropriate for advanced study in his or her chosen major field and his or her cumulative grade point average is at least 3.00 (A = 4.00). The Graduate Record Examination (GRE) (<http://www.ets.org/portal/site/ets/menuitem.fab2360b1645a1de9b3a0779f1751509/?vgnnextoid=b195e3b5f64f4010VgnVCM10000022f95190RCRD>) is required. For additional information, see the departmental Web site (<http://cee.illinois.edu/programs/Grad/GradApps>).

All applicants whose native language is not English are required to submit TOEFL (<http://www.toefl.org>) or International English Language Testing System (IELTS) (<http://www.ielts.org>) scores as evidence of English proficiency. Minimum admission requirements (<https://grad.illinois.edu/admissions/instructions/04c>) are set by the Graduate College.

Financial Aid

Financial aid is available in the form of fellowships and research and teaching assistantships. Starting in Fall 2020, Grainger Engineering PhD

students in their first five years of enrollment who meet the minimum eligibility requirements (<https://grainger.illinois.edu/academics/graduate/phd-funding-guarantee>) are guaranteed a funded appointment for fall and spring that includes a full tuition waiver, a partial fee waiver, and a stipend.

All applicants, regardless of US citizenship, whose native language is not English and who wish to be considered for teaching assistantships must demonstrate spoken English language proficiency (<http://www.grad.illinois.edu/admissions/taengprof.htm>) by achieving a minimum score of 50 or 24 on the speaking subsection of the TOEFL iBT or 8 on the speaking subsection of the IELTS. For students who are unable to take the iBT or IELTS, a minimum score of 4CP is required on the EPI test (http://cte.illinois.edu/testing/oral_eng/epi_overview.html), offered on campus. All new teaching assistants are required to participate in the Graduate Academy for College Teaching (<https://citl.illinois.edu/citl-101/teaching-learning/grad-academy-for-college-teaching>) conducted prior to the start of the semester.

Department Research

Areas of study and research pursued by our world-renowned faculty are focused in the following ten specializations:

- construction management
- environmental engineering and science
- environmental hydrology and hydraulic engineering
- geotechnical engineering
- materials management
- structural engineering
- transportation engineering
- sustainable and resilient infrastructure systems
- energy- water- environment sustainability
- societal risk and hazard mitigation

More information about these specialized areas may be found at the department's research Web site (<https://cee.illinois.edu/areas>).

Through the research centers based in the department, CEE students participate in a wide range of groundbreaking research projects with immediate relevance to real-world engineering applications. For more information, see the department's research centers Web site (<https://cee.illinois.edu/research/research-centers>).

CEE at Illinois is one of the nation's best-equipped programs, with a broad range of facilities for civil and environmental engineering education and research. For more information, see the department's research facilities Web site (<https://cee.illinois.edu/research/research-facilities>).

Other Graduate Programs in the Department of Civil & Environmental Engineering

degrees:

Civil Engineering, MS (<http://catalog.illinois.edu/graduate/engineering/civil-engineering-ms>)

optional concentrations:

Computational Science and Engineering (<http://catalog.illinois.edu/graduate/engineering/concentration/computational-science-engineering>)

Environmental Engineering in Civil Engineering, MS (<http://catalog.illinois.edu/graduate/engineering/environmental-engineering-civil-engineering-ms>)

optional concentrations:

Computational Science and Engineering (<http://catalog.illinois.edu/graduate/engineering/concentration/computational-science-engineering>)

Environmental Engineering in Civil Engineering, PhD (<http://catalog.illinois.edu/graduate/engineering/environmental-engineering-civil-engineering-phd>)

optional concentrations:

Computational Science and Engineering (<http://catalog.illinois.edu/graduate/engineering/concentration/computational-science-engineering>)

concentrations:

Railway Engineering (<http://catalog.illinois.edu/graduate/engineering/engineering-meng/railway>)

available for:

Engineering, MENG (<http://catalog.illinois.edu/graduate/engineering/engineering-meng>)

joint programs:

Civil Engineering, MS & Architecture, MARCH (http://catalog.illinois.edu/graduate/engineering_faa/joint-degree/architecture-march-civil-engineering-ms), (**Construction Management or Structures**)

Civil Engineering, MS & Urban Planning, MS (<http://catalog.illinois.edu/graduate/faa/joint-degree/urban-planning-mup>)

Opportunity also exists for specializing in energy and sustainability engineering via the

Energy and Sustainability Engineering (EaSE) Graduate Certificate Option (<http://ease.illinois.edu>)

for the degree of Doctor of Philosophy in Civil Engineering

The degree of Doctor of Philosophy, primarily a research degree, requires from three to four years of graduate study beyond the master's degree.

The major area of specialization encompasses courses and research that are closely related, but the courses need not be offered by a single major department. Candidates must demonstrate a capacity for independent research by preparing an original thesis on a topic within the major field of study, must meet the qualifying requirements or examination in the area of specialization, and must pass both preliminary and final examinations.

For additional details and requirements refer to the department's Graduate Handbook (<http://cee.illinois.edu/online-graduate-handbook>) and the Graduate College Handbook (<http://grad.illinois.edu/gradhandbook>).

Entering with an approved Master's Degree:

Code	Title	Hours
CEE 599	Thesis Research (min-max applied toward degree)	32
Elective courses (subject to Other Requirements and Conditions below)		32
Total Hours		64

Other Requirements

Requirement	Description
Other Requirements and Conditions may overlap	
A maximum of 8 hours of CEE 597 (or other independent study) may be applied toward the elective course work requirement; approval required.	
There is no department-wide foreign language requirement. However, the faculties of some areas of specialization may require foreign language proficiency if essential to the conduct of research in that area.	
64 graduate hours must be completed in residence.	
A Masters degree is required for admission to the Ph.D. program.	
Ph.D. exam and dissertation requirements:	
Qualifying exam ¹	
Preliminary exam	
Final exam or dissertation defense	
Dissertation deposit	
The minimum program GPA is 2.75.	

Entering with an approved Baccalaureate Degree:

Code	Title	Hours
CEE 599	Thesis Research	32-40
Elective Courses (subject to Other Requirements and Conditions below)		56-64
Total Hours		96

Other Requirements

Requirement	Description
Other Requirements and Conditions may overlap	
A maximum of 8 hours of CEE 597 (or other independent study) may be applied toward the elective course work requirement; approval required.	
There is no department-wide foreign language requirement. However, the faculties of some areas of specialization may require foreign language proficiency if essential to the conduct of research in that area.	

24 credit hours must be in major field. 24 credit hours of elective coursework must be at the 500-level, with at least 12 hours in major field.

64 graduate hours must be completed in residence.

Ph.D. exam and dissertation requirements:

Qualifying exam¹

Preliminary exam

Final exam or dissertation defense

Dissertation deposit

The minimum program GPA is 2.75.

¹ *Qualifying Exam Information* (<http://cee.illinois.edu/academics/graduate-programs/phd-degree-and-curriculum>)