

# Doctor of Philosophy in Civil Engineering

## Civil, Environmental, and Architectural Engineering

Civil engineering is the oldest engineering program at KU. The first graduating class in 1873 included a civil engineer. Civil engineers design roads, water systems, bridges, dams, and other structures, providing nearly all the infrastructure needed by modern society. Civil engineers were the first engineers to address environmental issues and are the lead engineering discipline in treating water supplies to protect public health. In recognition of the significant issues concerning the environment, the department name was changed in 1992 to civil and environmental engineering.

The environmental and water resources engineering (EWRE) and environmental and water resources science (EWRS) graduate programs were created in 2019 by combining existing programs in environmental engineering and science and water resources engineering. These programs dated back to the founding of the Environmental Health Sciences program in 1961. Environmental and water resources engineers and scientists address the safety and supply of water, the interactions of water and the hydrological cycle with the environment, and the use of physical, chemical, and biological processes to solve environmental and water problems.

Architectural engineering combines study in architecture with engineering science and design courses in electrical, mechanical, construction, and structures to prepare students for building design projects of all kinds. Architectural engineering dates to 1913 at KU, and the first female graduate of the School of Engineering was an architectural engineering major. Architectural engineering merged with civil and environmental engineering in 2001 to form the the Department of Civil, Environmental, and Architectural Engineering (CEAE).

## Mission

CEAE's mission is to provide students with an outstanding engineering education and be a leader in research and service. This mission is supported by the following 3 goals:

1. Prepare students for productive engineering careers.
2. Maintain and grow strong research programs.
3. Serve the profession.

## Standard Admission Requirements for all Graduate Programs

- All applicants must meet the requirements outlined in the Admission to Graduate Study (<https://policy.ku.edu/graduate-studies/admission-to-graduate-study/>) policy.
- Bachelor's degree: A copy of official transcripts showing proof of a bachelor's degree (and any post-bachelor's coursework or degrees) from a regionally accredited institution, or a foreign university with equivalent bachelor's degree requirements is required.
- English proficiency: Proof of English proficiency (<https://gradapply.ku.edu/english-requirements/>) for non-native or non-native-like English speakers is required. There are two bands of English

proficiency, including Admission and Full proficiency. For applicants to online programs, Full proficiency is required.

## Additional Graduate Program Admission Requirements

The department admits for all semesters. Students may pursue degrees full or part time. An ABET-accredited baccalaureate degree in engineering is required for admission to the Ph.D. degree programs in civil engineering and environmental & water resources engineering; a baccalaureate degree in a closely related field is required for admission to the Ph.D. program in environmental & water resources science. Applicants are expected to have undergraduate grade-point averages of 3.0 or higher on a 4.0 scale for admission.

Graduate Record Examination (GRE) scores are not required for admission. The Test of English as a Foreign Language is required for international applicants. Applicants should take the English Proficiency Tests as early as possible to expedite the admission process.

Graduate applications should be submitted online (<http://graduate.ku.edu/>).

## APPLICATION DEADLINES

**Fall Admission:** December 2 (priority deadline). August 1 (final deadline).

**Spring Admission:** October 1 (priority deadline). December 16 (final deadline).

**Summer Admission:** December 2 (priority deadline). May 19 (final deadline).

The priority deadlines are for full consideration for fellowships, scholarships and research/teaching assistantships. Applications submitted after these deadlines will be considered for funding on a case-by-case basis.

## MINIMUM ENGLISH PROFICIENCY REQUIREMENTS

Visit the full English Proficiency Requirements for Admission to Graduate study at: <http://policy.ku.edu/graduate-studies/english-proficiency-international-students> (<http://policy.ku.edu/graduate-studies/english-proficiency-international-students/>).

International students and students who indicated English as a second language are required to show proof of English proficiency for admission purposes and must check-in at the Applied English Center (<https://aec.ku.edu/>) (AEC) upon arrival on campus for orientation. This process serves to confirm each student's level of English proficiency and determine whether English courses will be included as a requirement of the student's academic program. Note: Students who demonstrate English proficiency **at the waiver level** are not required to check in at the AEC (see eligibility requirements on the Graduate Studies website (<https://graduate.ku.edu/english-proficiency-requirements/>)).

## APPLICATION FEES

Domestic: \$65

International: \$85

## VISITING US

The graduate program staff is happy to work with all prospective students in determining the fit between the student and the program. We feel that visiting our campus in Lawrence is a very important step. In order to facilitate your visit to KU, there are two main options:

The first, and most preferred, option entails simply applying for admission to the program. All prospective students are welcome to attend our Graduate Open House in mid-October or mid-March. Eligible admitted students may be invited to participate in Campus Visit Days in February (prior to the fall semester of your intended matriculation). These organized visitation opportunities will allow you to gather a great deal of first-hand information which we hope will help you in making a final decision about whether to attend KU.

The second option is making arrangements to visit us on your own, outside of organized events. With early notification, we will do our best to work with you to provide information and schedule appointments with faculty when possible. Please contact us if you feel that this is the best option for you.

## CONTACT INFORMATION

Please contact the CEAE Graduate Program Coordinator at [gradceae@ku.edu](mailto:gradceae@ku.edu) or (785) 864-3826, to schedule a visit or with questions about the application process.

**The University of Kansas**  
**Department of Civil, Environmental, and Architectural Engineering**  
**Graduate Administrative Assistant**  
**Learned Hall**  
**1530 W. 15th St., Room 2150**  
**Lawrence, KS 66045**

## Ph.D. Degree Requirements

Candidates for the Ph.D. degree must satisfy the University's general requirements for the degree. A Plan of Study must be approved by the student's major professor, examining committee, and departmental graduate studies committee.

An aspirant for the Ph.D. degree must pass a qualifying examination. The department normally gives this examination upon completion of the aspirant's M.S. work or at a comparable level for non-M.S. students.

Before being admitted to the comprehensive examination, the aspirant must satisfy the research skill, residency, and responsible scholarship requirements for the degree. The research skill requirement provides the aspirant with a research skill distinct from, but strongly supportive of, the dissertation research. One research skill is required. Possible research skills include foreign language, computer science, mathematics, statistics, specific laboratory skills, and specific skills in the physical or biological sciences. The foreign language skill can be obtained by taking a 2-course sequence in the selected language or demonstrated by passing an examination. The selected research skill must be listed on the Plan of Study form. A separate statement attached to the Plan of Study must list the work to be completed to obtain the research skill. The responsible scholarship requirement serves to ensure that students are trained in responsible research practices and is fulfilled by attending a Responsible Scholarship Training Seminar offered each fall semester.

All graduate students must have an approved Plan of Study (<https://engrgradplan.ku.edu/>) on file by the beginning of their second semester of study.

At the completion of this program, students will be able to:

- Acquire and integrate new knowledge as needed, using appropriate learning strategies.
- Solve engineering problems by applying fundamental principles of mathematics, science, and engineering and relevant technologies.
- Effectively communicate advanced civil engineering concepts.
- Produce independent, publishable, and impactful research that makes a new contribution to the field of civil engineering.