Master of Science in Architectural, Civil, and Environmental Engineering and Environmental Science

Civil, Environmental, and Architectural Engineering

Civil Engineering (CE) 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.

Architectural Engineering (ARCE) combines study in architecture with engineering science and design courses in structures, illumination, power, mechanical energy, and construction to prepare students for building design projects of all kinds. KU’s B.S. degree program in architectural engineering was established in 1912. 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.

Graduate Admission

The department admits for all semesters. Students may pursue degrees full-time or part-time. An ABET-accredited baccalaureate degree in engineering is required for admission to the M.S. degree programs in civil engineering, environmental engineering, and architectural engineering. Applicants with baccalaureate degrees in engineering are expected to have undergraduate grade-point average of 3.0 or higher on a 4.0 scale for regular admission to a master’s program. Those with slightly lower grade-point average may be admitted on a provisional status.

Graduate Record Examination (GRE) scores are required for all applicants and are used as part of the evaluation process. Preferred scores for regular admission are 3.5/150/150 minimum. The engineering and other discipline-specific subject GRE examinations are not required. Applicants should take the GRE and TOEFL examinations as early as possible to meet the application deadlines and expedite the admission process.

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

Minimum English Proficiency Requirements

These guidelines are subject to change by official action of the appropriate Graduate School governance bodies. Visit the full English Proficiency Requirements for Admission to Graduate study at: http://policy.ku.edu/graduate-studies/english-proficiency-international-students.

The following are acceptable means for verifying English Proficiency for purposes of admitting international students and domestic non-native English speakers:

- Graduation with a baccalaureate degree (or higher) earned in residence from an accredited English-medium U.S. college or university or a college or university in the United Kingdom, Australia, New Zealand, Ireland, English-speaking province of Canada, or an English-speaking Caribbean country, with instruction conducted in English. Degrees earned online may not be used to verify English proficiency.
- Official scores from an English proficiency standardized test scores (e.g., TOEFL, IELTS-Academic, or PTE), sent by the testing agency to the University of Kansas. Official scores must be less than two years old.
- In exceptional cases, a department, with written support from the appropriate School or College, may petition the Dean of Graduate studies to consider alternative documentation of English proficiency. In consultation with the Director of the Applied English Center, the Dean of Graduate Studies will determine whether the alternative documentation demonstrates English proficiency at the level expected for regular admission to graduate study at KU.

Application Deadlines - Domestic

Fall Admission: December 15 (priority deadline) applications accepted through July 31
Spring Admission: September 30 (priority deadline) applications accepted through December 30
Summer Admission: May 15

Application Deadlines - International

Fall Admission: December 15 (priority deadline) applications accepted through May 15
Spring Admission: September 30 (priority deadline) applications accepted through October 15

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

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 (http://www.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 or who have earned a degree from one of the specified English-speaking countries 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 sbiscott@ku.edu (s523s307@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

M.S. Degree Requirements

Civil Engineering
Candidates for the Master of Science degrees have 2 options. Option A requires 30 credit hours including a thesis of 6 hours (6 to 10 hours for the environmental degrees) and a final oral examination including defense of the thesis. Option B requires 30 hours including a 3- or 4-hour special problem investigation in the specialization and a final oral examination. It does not require a thesis.

The M.S. degree in civil engineering requires a minimum of 9 hours of graduate-level courses in one of the following seven areas: structural engineering, environmental engineering, water resources engineering, geotechnical engineering, transportation engineering, construction engineering/management, and engineering mechanics.

In addition, a minimum of 6 hours of graduate-level work is required in any of the other above departmental areas.

Courses for any of the M.S. degrees must be listed on a Plan of Study and approved by the student’s major professor, examining committee, and the departmental graduate advisor. All graduate students must have an approved Plan of Study (https://gradplan.engr.ku.edu/accounts/login/?next=) by the beginning of their second semester of study. No more than 9 hours of courses from other departments or more than 6 hours of courses numbered below 700 (of which only 3 hours may be within the department) may be applied toward any of the M.S. degrees without approval of the departmental graduate studies committee. No more than 4 hours of special-problem credit may be applied toward any of the master’s degrees without approval of the department’s graduate advisor.

Environmental Engineering
Candidates for the Master of Science degrees have 2 options. Option A requires 30 credit hours including a thesis of 6 hours (6 to 10 hours for the environmental degrees) and a final oral examination including defense of the thesis. Option B requires 30 hours including a 3- or 4-hour special problem investigation in the specialization and a final oral examination. It does not require a thesis.

The M.S. degree in environmental engineering requires an understanding of chemical, biological, and physical principles of environmental engineering processes, i.e., satisfactory completion of CE 770, CE 772, CE 773, and CE 774 or equivalents. Substitutions require the approval of both the student’s committee and the graduate advisor.

Courses for any of the M.S. degrees must be listed on a Plan of Study and approved by the student’s major professor, examining committee, and the departmental graduate advisor. All graduate students must have an approved Plan of Study (https://gradplan.engr.ku.edu/accounts/login/?next=) by the beginning of their second semester of study. No more than 9 hours of courses from other departments or more than 6 hours of courses numbered below 700 (of which only 3 hours may be within the department) may be applied toward any of the M.S. degrees without approval of the departmental graduate studies committee. No more than 4 hours of special-problem credit may be applied toward any of the master’s degrees without approval of the department’s graduate advisor.

Environmental Science
Candidates for the Master of Science degrees have 2 options. Option A requires 30 credit hours including a thesis of 6 hours (6 to 10 hours for the environmental degrees) and a final oral examination including defense of the thesis. Option B requires 30 hours including a 3- or 4-hour special problem investigation in the specialization and a final oral examination. It does not require a thesis.

The M.S. degree in environmental engineering requires an understanding of chemical, biological, and physical principles of environmental engineering processes, i.e., satisfactory completion of CE 770, CE 772, CE 773, and CE 774 or equivalents. Substitutions require the approval of both the student’s committee and the graduate advisor.

Courses for any of the M.S. degrees must be listed on a Plan of Study and approved by the student’s major professor, examining committee, and the departmental graduate advisor. All graduate students must have an approved Plan of Study (https://gradplan.engr.ku.edu/accounts/login/?next=) by the beginning of their second semester of study. No more
than 9 hours of courses from other departments or more than 6 hours of courses numbered below 700 (of which only 3 hours may be within the department) may be applied toward any of the M.S. degrees without approval of the departmental graduate studies committee. No more than 4 hours of special-problem credit may be applied toward any of the master’s degrees without approval of the department’s graduate advisor.

**Architectural Engineering**

Candidates for the Master of Science degrees have 2 options. **Option A** requires 30 credit hours including a thesis of 6 hours (6 to 10 hours for the environmental degrees) and a final oral examination including defense of the thesis. **Option B** requires 30 hours including a 3- or 4-hour special problem investigation in the specialization and a final oral examination. It does not require a thesis.

The M.S. degree in architectural engineering is intentionally flexible in its course requirements because graduate study in architectural engineering requires specialization in one of many areas of professional practice. Each student works with his or her committee to select appropriate graduate courses that support the research project and the student's career goals. Students can pursue specializations in, for example, building mechanical, energy, electrical, lighting, or structural systems, or construction engineering. Emerging or hybrid specializations such as sustainability, acoustics, or fire protection are also encouraged.

Courses for any of the M.S. degrees must be listed on a Plan of Study approved by the student’s major professor, examining committee, and the departmental graduate advisor. All graduate students must have an approved Plan of Study (https://gradplan.engr.ku.edu/accounts/login/?next=) by the beginning of their second semester of study. No more than 9 hours of courses from other departments or more than 6 hours of courses numbered below 700 (of which only 3 hours may be within the department) may be applied toward any of the M.S. degrees without approval of the departmental graduate studies committee. No more than 4 hours of special-problem credit may be applied toward any of the master’s degrees without approval of the department’s graduate advisor.