

Doctor of Philosophy in Engineering and Applied Science (CEE)

A doctoral program in Engineering and Applied Science (<https://coursecat.isu.edu/graduate/scienceengineering/engineeringandappliedscience/>), administered through the College of Science and Engineering, is available to the students in the Department of Civil and Environmental Engineering. The Department of Civil and Environmental Engineering offers the following concentration options: Civil Engineering, Environmental Engineering, and Environmental Science & Management.

Admission Requirements

In addition to the Graduate School Admission requirements, acceptance into the Civil Engineering, Environmental Engineering, or Environmental Science & Management concentration requires the following:

Civil Engineering Concentration

- Completed or in the process of completing a master's degree in engineering, applied science, or equivalent field
- Score 60th percentile or better in the quantitative section of the Graduate Record Examination (GRE)
- A faculty advisor

Environmental Engineering Concentration

- Completed or in the process of completing a master's degree in engineering, applied science or equivalent field
- Score 60th percentile or better in the quantitative section of the Graduate Record Examination (GRE)
- A faculty advisor

Environmental Science & Management Concentration

- Completed or in the process of completing a master's degree in engineering, applied science or equivalent field
- Score 60th percentile or better in one or more of the aptitude sections (Verbal, Quantitative, or Analytical) of the GRE.
- A faculty advisor

General Admission Requirements

If not all requirements are met, the Civil and Environmental Engineering Department may choose to admit the candidate to "Classified (with performance requirements)" status. Applicants admitted as "Classified (with performance requirements)" status will be required to rectify any deficiencies determined by the student's Program Director (or Coordinator) and the Chair of the Department. The candidate must submit:

1. All college/university transcripts
2. GRE scores
3. Three letters of recommendation
4. A one-page statement including research/career interests and goals as well as a preferred area of concentration
5. A resume or curriculum vitae

Course Requirements

The Ph.D. Advisory Committee will guide the student in establishing his or her Program of Study based upon the student's background and research interests to satisfy doctoral-level coursework. In addition, the committee will evaluate the level of the student's preparation in his or her area of research as well as the background in his/her sub-disciplines needed to successfully complete courses toward a PhD.

In addition to the Graduate School requirements, the Department of Civil and Environmental Engineering requires the following:

- Of the minimum of 18 credits needed for a PhD, at least 6 credits must be in areas outside the main area of research.
- Minimum of 2 credits and maximum of 4 credits of graduate seminar must be taken by each student.
- The student must give at least one seminar presentation on the dissertation topic and at least one additional seminar presentation on a topic other than the thesis work.

A minimum of 9 credits per semester is required in order for a student to qualify as a full-time graduate teaching/research assistant (GTA/GRA).

Research Requirements

A substantial original research work is required to complete the doctoral studies. The dissertation must meet the following requirements:

- Contain results of relevant and original research approved by the student's Advisory Committee, and formatted according to the guidelines of the Graduate School;
- Demonstrate student's mastery of the chosen research subject by designing and conducting research;
- Demonstrate student's creativity, critical thinking, and problem-solving skills;
- Demonstrate student's ability to investigate independently, and to discuss and articulate engineering and/or science problems to his/her peers;
- Contribute to the engineering profession and/or scientific knowledge

Dissemination Requirement

One of the following is required at the time of Dissertation defense:

- At least one article is accepted for publication (with DOI) in a peer-reviewed journal.
- At least two articles submitted to a peer-reviewed journal.
- At least two articles contributed (or accepted) to national or international peer-reviewed conferences.