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.

**Department Research**

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

- construction management and science
- environmental engineering and science
- geotechnical engineering
- hydrology and hydraulic engineering
- structural engineering and resilient infrastructure systems
- sustainable materials and additive manufacturing technologies
- materials engineering
- geotechnical engineering
- 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/).

The degree requirements for the online programs are the same as for the on-campus non-thesis MS program—36 hours of course work—and the degree awarded to online students is the same degree awarded to resident students. Online students have five years to complete the program.

The MS degree in Environmental Engineering offered online includes five core courses in Environmental Engineering and electives chosen in Environmental Engineering, Hydrology and Hydraulic Engineering, or other areas of Civil Engineering to fulfill the degree requirements.

This degree program can be completed either on campus or online; with or without a thesis, the requirements are listed below:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Thesis Option</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elective courses</td>
<td>36 hours subject to Other Requirements and Conditions below</td>
<td></td>
</tr>
<tr>
<td>Total Hours</td>
<td>Non-Thesis Option</td>
<td>36</td>
</tr>
<tr>
<td>Thesis Option</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CEE 599 Thesis Research (4 to 12 hours)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elective courses</td>
<td>20-28 hours subject to Other Requirements and Conditions below</td>
<td></td>
</tr>
<tr>
<td>Total Hours</td>
<td>Thesis Option</td>
<td>32</td>
</tr>
</tbody>
</table>

**Other Requirements**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Requirements may overlap</td>
<td></td>
</tr>
<tr>
<td>Individual programs are developed by the students in consultation with their academic advisors.</td>
<td></td>
</tr>
<tr>
<td>A minimum of 16 hours of credit within the major field with 8 graded and at the 500 level.</td>
<td></td>
</tr>
<tr>
<td>A minimum of 12 hours at the 500-level overall.</td>
<td></td>
</tr>
<tr>
<td>A maximum of 8 hours of CEE 597 (or other independent study) may be applied toward the elective course work requirement.</td>
<td></td>
</tr>
<tr>
<td>At least half of the minimum hours required for the degree must be in Illinois courses meeting on the Urbana-Champaign campus or in courses meeting in other locations approved by the Graduate College for residency credit for the degree.</td>
<td></td>
</tr>
<tr>
<td>Minimum program GPA</td>
<td></td>
</tr>
<tr>
<td>2.75</td>
<td></td>
</tr>
</tbody>
</table>

for the degree of Master of Science in Environmental Engineering in Civil Engineering (on campus & non-thesis online)

1. Ability to identify and utilize advanced mathematical, computational, design and/or experimental skills to solve complex problems in civil and environmental engineering
2. Demonstrate technical knowledge and depth in at least one or more CEE subject areas and breadth of knowledge in at least one additional area.
3. Demonstrate the ability to communicate effectively (written, oral presentation, and other media) technical ideas, design concepts, or research results.

Information listed in this catalog is current as of 09/2023
4. Understanding of the student’s professional and scientific ethical responsibilities;
5. Propose, plan, and execute original research idea that target current or future societal challenges related to civil and environmental engineering.
6. Demonstrate skills to teach technical subjects in CEE at the university level

for the degree of Master of Science in Environmental Engineering in Civil Engineering (on campus & non-thesis online)

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 environmental engineering in civil engineering is granted to graduates of accredited institutions whose requirements for the bachelor's degree are substantially equivalent to those of the University of Illinois 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/?vgnextoid=b195e3b5f64f0075f10190RCRD) is required.

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. Students applying to the online program must satisfy the full status admissions requirement.

Financial Aid

Financial aid is available in the form of fellowships and research and teaching assistantships. All applicants, regardless of U.S. 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 the TOEFL iBT or 8 on the speaking subsection of the IELTS is required.

• optional concentrations for the PhD:
  • Computational Science & Engineering (http://catalog.illinois.edu/graduate/engineering/concentration/computational-science-engineering/)
  • 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/)
  • Civil Engineering, PhD (http://catalog.illinois.edu/graduate/engineering/civil-engineering-phd/)
  • optional concentrations:
    • Computational Science and Engineering (http://catalog.illinois.edu/graduate/engineering/concentration/computational-science-engineering/)
    • concentrations: (http://catalog.illinois.edu/graduate/engineering/concentration/computational-science-engineering/)
      • 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/)

for the degree of Master of Science in Environmental Engineering in Civil Engineering (on campus & non-thesis online)

Department of Civil & Environmental Engineering
Department Head: Ana Barros (https://cee.illinois.edu/directory/staff/office-department-head/)
Director of Graduate Studies: Scott Olson (http://catalog.illinois.edu/graduate/engineering/civil-engineering-ms/olson@illinois.edu)
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/)
1108 Newmark Civil Engineering Lab, 205 N Mathews Ave, Urbana, IL 61801
email: civil@illinois.edu

Grainger College of Engineering
Grainger College of Engineering website (https://grainger.illinois.edu/)

Admissions
Graduate Contact: Joan Christian (civil@illinois.edu)
(217) 265-4496
Departmental Admissions & Requirements (https://cee.illinois.edu/admissions/graduate/)
Graduate College Admissions & Requirements (https://grad.illinois.edu/admissions/apply/)