Environmental Engineering, B.S.E.

Educational Objectives

Within a few years of graduation, graduates of the Bachelor of Science in Engineering (B.S.E.) program in environmental engineering will:

• be productive and contributing members of the environmental engineering profession as practitioners, entrepreneurs, researchers or teachers;
• be engaged in learning, understanding, and applying new ideas as the field develops;
• pursue advanced studies, if qualified and interested; and
• promote the safety, health, and welfare of the public and the environment through professional practice and civic leadership.

Requirements

The Bachelor of Science in Engineering with a major in environmental engineering requires a minimum of 133 s.h. of credit. Students must have a g.p.a. of at least 2.00 on all college work used to satisfy degree requirements as well as on all work undertaken at the University of Iowa.

All engineering students complete the B.S.E. core requirements, which include RHET:1030 Rhetoric; ENGR:1100 Introduction to Engineering Problem Solving and ENGR:1300 Introduction to Engineering Computing; and courses in chemistry, engineering mathematics and fundamentals, and physics.

They also complete the curriculum designed for their major program, which covers four major stems: mathematics and basic sciences, engineering topics, a focus area, and the General Education Component. For information about the curriculum stems, see the Bachelor of Science in Engineering, B.S.E. in the Catalog.

Students must select focus area courses according to guidelines established by the Department of Civil and Environmental Engineering. See “Focus Areas” below.

Focus Areas

Environmental engineering students may choose from a standard focus area developed by the department or create an individual focus area tailored to their interests.

For a description of the standard focus area options and guidelines for tailored focus areas in environmental engineering, see Elective Focus Areas on the Department of Civil and Environmental Engineering website.

Combined Programs

B.S.E./M.S. in Civil and Environmental Engineering

The College of Engineering offers a Bachelor of Science in Engineering/Master of Science program for environmental engineering undergraduate students who intend to earn a M.S. in civil and environmental engineering. B.S.E./M.S. students may attend the departmental graduate seminar and work on a master's thesis or research project while they are still undergraduates. They may count a limited amount of coursework toward both degrees. Once students complete the requirements for the bachelor’s degree, they are granted the B.S.E., and they normally complete the M.S. one year later.

To be admitted to the degree program, students must have completed at least 80 s.h. and have a cumulative g.p.a. of at least 3.25. They must submit an application form to the Department of Civil and Environmental Engineering, along with a letter stating their proposed area of specialization and the name of a department faculty member willing to be their primary M.S. advisor. Graduate Record Examination (GRE) General Test scores are not required for the fast-track degree program.

Applications are due by May 15.

Career Advancement

Environmental engineers apply engineering principles to design systems that control pollution and protect public health. Environmental engineers restore air, soil, and water quality at contaminated sites, and develop systems that convert waste into clean energy. Environmental engineering addresses the complex food, energy, and water issues of the 21st century. On average, 93-98 percent of graduates are employed in their field of study or pursuing advanced education within seven months of graduation.

Engineering Career Services develops and promotes experiential education and professional opportunities for students. Professional staff coordinate the college's co-op and internship program, engage in employer outreach, and provide opportunities for students to network with employers, including an engineering career fair and other career-development programming each semester.

Engineering Career Services also offers individual advising and class presentations on résumé and cover letter preparation, job and internship search strategies, interviewing skills, and job offer evaluation.