

MAJOR IN ENVIRONMENTAL ENGINEERING

Environmental engineers design solutions that prevent future pollution as well as correct existing pollution problems. The undergraduate curriculum in Environmental Engineering is based on a strong foundation in physical, chemical, and biological sciences, mathematics, and engineering fundamentals. The All-University Core Curriculum (AUCC) (<http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/>) provides a broad background in communication, liberal arts, humanities, and social sciences. Upper-division courses address engineering applications for prevention and control of air, water, and land pollution. Required courses that are specific to the Environmental Engineering major come from several engineering and science disciplines, including organic and environmental chemistry, microbiology, hydrology, statistics, environmental toxicology, and water treatment. Technical electives provide specialization in a particular area of interest. Seniors complete the same year-long, capstone design experience as Civil Engineering majors, working in teams on real-world engineering problems.

Participation in student professional societies, other campus organizations, internships, and volunteer activities is highly recommended to foster personal growth and professional development. The Fundamentals of Engineering (FE) exam is the first step toward registration as a licensed Professional Engineer (PE), an important professional credential for environmental engineers. Therefore, students are encouraged to take the FE exam prior to graduation. The educational outcomes and objectives for the Environmental Engineering program, along with additional information on this major, are given at Department of Civil and Environmental Engineering website (<https://www.engr.colostate.edu/ce/>). The Environmental Engineering major is accredited by the Engineering Accreditation Commission of ABET (<http://abet.org/>).

Potential Occupations

Students who obtain a Bachelor of Science degree in Environmental Engineering from CSU are well prepared to solve some of the world's most challenging environmental problems, such as providing for sustainable resources of high quality water and air for the world's expanding population in the face of the growing detrimental impacts resulting from climate change, such as prolonged drought and increased famine. The need to solve these challenging problems will contribute to the increased demand for the services of environmental engineers, both in the U.S. and abroad. Environmental engineers typically are employed in designing pollution prevention equipment and systems, designing environmental monitoring systems, implementing both government and industry environmental regulations, designing water and wastewater treatment systems, and restoring ecosystem health.

Graduates of the Environmental Engineering degree program from CSU are qualified for entry-level positions with regulatory agencies, engineering consulting firms, and environmental divisions of large corporations, particularly in the energy and manufacturing industries. Some example job titles for graduates include, but are not limited to, hydraulic engineer, water resources engineer, environmental engineer, geoenvironmental engineer, reclamation engineer, stormwater engineer, floodplain manager, groundwater engineer, hydrologist, urban/regional planner, water infrastructure engineer or manager, contract administrator, facilities engineer or manager, irrigation engineer, ecological engineer,

and educator. Graduate study in a specific area of interest is highly recommended to enhance the ability to undertake more advanced technical responsibilities upon graduation.