GRADUATE PROGRAM

Engineering with a Concentration in Environmental Engineering

http://engineering.uci.edu/dept/cee/graduate/programs/environmental

Environmental engineering is an interdisciplinary program, engaging faculty from engineering and the sciences. It addresses the development of strategies to control anthropogenic emissions of pollutants to the atmosphere, waterways and terrestrial environment; the remediation of polluted natural systems; the design of technologies to treat waste, energy efficiency and environmentally responsible power generation; and the evaluation of contaminant fate in the environment. The program curriculum provides students with an understanding of environmental air and water chemistry; environmental microbiology; combustion technologies; aerosol science; transport phenomena; reactor theory; unit operations and systems design; physical, chemical and biological processes in relation to water and wastewater treatment; water reuse; pollutant fate and transport; waste disposal; the ecology of natural waters; mathematical modeling; energy systems; soil physics; fluid mechanics; hydrology; meteorology; and global climate change and energy.

DEGREES OFFERED

M.S. & Ph.D.

HIGHLIGHTS

- Internationally recognized academics
- State-of-the-art laboratories and research centers
- Financial support through research and teaching opportunities

RESEARCH FOCUS AREAS

- Water
- Energy
- Air Quality
- Climate

AFFILIATED FACILITIES

- Advanced Power and Energy Program
- Center for Hydrometeorology and Remote Sensing
- Institute of Transportation Studies
- Water-Energy Nexus (WEX) Center

REQUIRED BACKGROUND

The program core curriculum builds on environmental engineering fundamentals such as fluid mechanics, environmental chemistry, microbial processes, thermodynamics, hydrological and climate science, and reactor theory and design. The interdisciplinary nature of the program allows students with a variety of science and engineering backgrounds to undertake studies in this field. Students admitted to the program lacking one or more fundamental courses can earn credit toward the M.S. degree by completing these courses at UCI. Students entering the program are expected to have had exposure to engineering-level math that includes linear algebra, differential equations and statistics.

The degree to which each student meets the program's background requirement is determined by a faculty committee at the time of admission. Students with an insufficient background who are offered admission will be required to take a set of appropriate prerequisite undergraduate courses before entering the program or at the beginning of the program.

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GRADUATE COORDINATOR

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