ENVIRONMENTAL ENGINEERING

The Environmental Engineering Graduate Program (http://www.colorado.edu/even/) focuses on the fundamental and applied understanding of the processes which govern our natural and engineered environmental systems.

The program consists of over 35 research and instructional faculty members and about 70 graduate students, covers topics ranging from drinking and wastewater treatment, water reuse, ecosystem processes, fate and transport of contaminants, alternative energy, air quality, sustainability and global engineering. The program offers MS, Professional MS, and PhD degrees in environmental engineering.

For more information, visit the Environmental Engineering Program (https://www.colorado.edu/even/prospective-students/) website.

Course code for this program is EVEN.

Master's Degrees

- Environmental Engineering - Master of Science (MS) (https://catalog.colorado.edu/graduate/colleges-schools/engineering-applied-science/programs-study/environmental-engineering/environmental-engineering-master-science-ms/)
- Environmental Engineering - Professional Master of Science (MSENV) (https://catalog.colorado.edu/graduate/colleges-schools/engineering-applied-science/programs-study/environmental-engineering/environmental-engineering-professional-master-science-msenv/)

Doctoral Degree

- Environmental Engineering - Doctor of Philosophy (PhD) (https://catalog.colorado.edu/graduate/colleges-schools/engineering-applied-science/programs-study/environmental-engineering/environmental-engineering-doctor-physics-phd/)

Certificate

- Architectural Lighting - Graduate Certificate (https://catalog.colorado.edu/graduate/colleges-schools/engineering-applied-science/programs-study/environmental-engineering/architectural-lighting-graduate-certificate/)

Faculty

While many faculty teach both undergraduate and graduate students, some instruct students at the undergraduate level only. For more information, contact the faculty member's home department.

Balaji, Rajagopalan (https://experts.colorado.edu/display/fisid_118480/)  
Professor, Chair; PhD, Utah State University

Becker, William  
Scholar in Residence; PhD, John Hopkins University

Bielefeldt, Angela R. (https://experts.colorado.edu/display/fisid_110322/)  
Professor; PhD, University of Washington

Bolhari, Azadeh  
Instructor; PhD, Colorado State University

Cook, Sherri M. (https://experts.colorado.edu/display/fisid_154773/)  
Assistant Professor; PhD, University of Michigan Ann Arbor

Crimaldi, John P. (https://experts.colorado.edu/display/fisid_115733/)  
Professor; PhD, Stanford University

Emery, William J.  
Professor Emeritus; PhD, University of Hawaii

Evans, Thomas  
Assistant Professor; PhD, University of Colorado Boulder

Gooseff, Michael N. (https://experts.colorado.edu/display/fisid_155922/)  
Professor; PhD, University of Colorado Boulder

Hannigan, Michael P. (https://experts.colorado.edu/display/fisid_122655/)  
Professor; PhD, California Institute of Technology

Henze, Daven K. (https://experts.colorado.edu/display/fisid_144858/)  
Associate Professor; PhD, California Institute of Technology

Hernandez, Mark T. (https://experts.colorado.edu/display/fisid_107635/)  
Professor; PhD, University of California, Berkeley

Hertzberg, Jean R. (https://experts.colorado.edu/display/fisid_105315/)  
Associate Professor; PhD, University of California, Berkeley

Javernick-Will, Amy N. (https://experts.colorado.edu/display/fisid_146430/)  
Associate Professor; PhD, Stanford University

Kasprzyk, Joseph R. (https://experts.colorado.edu/display/fisid_151506/)  
Assistant Professor; PhD, Pennsylvania State University

Klees, Rita C. (https://experts.colorado.edu/display/fisid_145391/)  
Scholar in Residence; PhD, University of Colorado

Korak, Julie A. (https://experts.colorado.edu/display/fisid_155070/)  
Assistant Professor; PhD, University of Colorado Boulder

Kuchenriether, Richard D. (https://experts.colorado.edu/display/fisid_143039/)  
Scholar in Residence; PhD, University of Colorado Boulder

Linden, Karl G. (https://experts.colorado.edu/display/fisid_143747/)  
Professor; PhD, University of California, Davis

Livneh, Ben (https://experts.colorado.edu/display/fisid_151999/)  
Assistant Professor; PhD, University of Washington

Mansfeldt, Cresten (https://experts.colorado.edu/display/fisid_165411/)  
Assistant Professor; PhD, Cornell University

McKnight, Diane M. (https://experts.colorado.edu/display/fisid_110517/)  
Professor; PhD, Massachusetts Institute of Technology

Michelsen, Hope (https://experts.colorado.edu/individual/fisid_165261/)  
Associate Professor; PhD, Stanford University

Milford, Jana B. (https://experts.colorado.edu/display/fisid_103268/)  
Professor; PhD, Carnegie Mellon University

Miller, Shelly L. (https://experts.colorado.edu/display/fisid_110394/)  
Professor; PhD, University of California, Berkeley

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Environmental Engineering Graduate Program
Courses

**EVEN 5444 (3) Analytical Methods, Experimental Design, and Applied Data Analysis**

Focuses on experimental design and applied statistical methods for data analysis in the environmental engineering field. Students learn how to design and interpret experiments considering multiple variables, avoid confounding effects, and identify interactions between variables. Statistical tools are applied to analytical methods to validate environmental analytical samples. Students learn how to decipher analytical methods to ensure that environmental samples are collected and analyzed following robust quality assurance/quality control procedures.

**Requisites:** Restricted to College of Engineering and Applied Science graduate students or BS/MS Concurrent Degree Students only.

**Recommended:** Prerequisite an undergraduate statistics course.

**Grading Basis:** Letter Grade

**EVEN 5584 (3) Sustainable Engineering Design**

Introduces students to sustainable design and quantitative sustainability assessment methods. Students will develop an understanding of quantitative sustainable design and how to navigate engineering decision-making. Students will learn tools for economic (life cycle costing, LCC) and environmental (life cycle assessment, LCA) sustainability assessments, and how to link these tools to engineering design decisions under uncertainty. Students will design engineered technologies individually and in teams, with special attention to energy and water technologies. Main course objectives are that students will have the ability to assess the relative sustainability of design alternatives using quantitative tools and to complete the detailed design of civil/environmental engineering infrastructure while navigating trade-offs across and within dimensions of sustainability.

**Requisites:** Restricted to graduate students only.

**Grading Basis:** Letter Grade

**EVEN 5999 (1-3) Refugees and Displacement**

Examines the processes and policies contributing to and driving refugee and migration flows, as well as response strategies. The focus will be on forced displacement, which currently impact the lives of almost 80 million people worldwide. This course covers solutions, particularly in the settlement context, for the appropriate provision of covered living space to adequately shelter displaced populations, while also promoting safer, healthier settlements that link emergency shelter and settlement assistance to longer-term recovery efforts. Previously offered as a special topics course.

**Requisites:** Restricted to students with 57-180 credits (Junior or Senior) or graduate students only.

**Recommended:** Prerequisites CVEN 4839/5919, EVEN 5979 and EVEN 5989.

**Grading Basis:** Letter Grade

**EVEN 6940 (1) Master's Candidate for Degree**

Registration intended for students preparing for a thesis defense, final examination, culminating activity, or completion of degree.

**EVEN 6950 (1-6) Master's Thesis**

**Repeatable:** Repeatable for up to 6.00 total credit hours.

**EVEN 8990 (1-10) Doctoral Dissertation**

**Repeatable:** Repeatable for up to 10.00 total credit hours.