



Environmental Systems

GRADUATE STUDIES AT UNIVERSITY OF CALIFORNIA, MERCED (M.S., Ph.D.)

Environmental Systems (ES) Graduate Studies provides students with knowledge and skills to tackle the most challenging problems facing our planet – water, soil, climate, energy and resources. Through understanding the earth as an integrated system of atmosphere, hydrosphere, lithosphere and biosphere that intersects human society, es students are uniquely poised to address critical research needs of the environment and its sustainability. Graduates are prepared for careers in academia, research, government and industry that integrate expertise from across engineering, natural sciences and social sciences.

RESEARCH AREAS

- › Water Resources and Climate
- › Environmental and Ecological Engineering
- › Sustainable Energy
- › Biogeochemistry and Environmental Chemistry
- › Ecology, Evolution and Biodiversity
- › Conservation and Resource Management

CONTACT

ENVIRONMENTAL SYSTEMS (ES)

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GRADUATE DIVISION

ADMISSIONS:

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GENERAL INQUIRIES:

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RESEARCH CENTERS AND FACILITIES

- › **Sierra Nevada Research Institute (SNRI)** | snri.ucmerced.edu
- › **Merced Vernal Pools and Grassland Reserve** | vernalpools.ucmerced.edu
- › **Environmental Analytical Laboratory** | snri.ucmerced.edu/environmental-analytical-laboratory
- › **Yosemite Wawona Field Station** | snri.ucmerced.edu/yosemite-field-station-wawona
- › **Southern Sierra Critical Zone Observatory** | criticalzone.org/Sierra
- › **University of California Advanced Solar Technologies Institute (UC SOLAR)** | ucsolar.ucmerced.edu
- › **Center for Information Technology Research in the Interest of Society (CITRIS)** | citris.ucmerced.edu

FUNDING OPPORTUNITIES

Students in good standing are eligible for year-round financial support, including payment of fees and tuition. Students are typically supported by teaching and research assistantships, which can be supplemented by fellowships, awards and other forms of financial assistance.

Faculty

ENVIRONMENTAL SYSTEMS



ROGER BALES, Ph.D. – *California Institute of Technology* | Critical-zone science; water resources; climate applications
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ASMERET ASEFAW BERHE, Ph.D. – *University of California, Berkeley* | Terrestrial biogeochemistry; soil science; soil organic matter dynamics
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MARC BEUTEL, Ph.D. (Chair) – *University of California, Berkeley* | Surface water quality; mercury and nitrogen cycling; treatment wetlands
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WEI-CHUN CHIN, Ph.D. – *University of Washington* | Dissolved organic carbon; oil spills; exopolymeric substances
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MARTHA CONKLIN, Ph.D. – *California Institute of Technology* | Biogeochemistry; surface water/ground water interactions; chemical processes in snow
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GERARDO DIAZ, Ph.D. – *University of Notre Dame* | Energy conversion systems; dynamic simulation and control of thermal systems
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TEAMRAT GHEZZEHEI, Ph.D. – *Utah State University* | Soil physics, agroecology, soil systems modeling, sustainability
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THOMAS HARMON, Ph.D. – *Stanford University* | Fluid flows and mass fluxes in natural and engineered environments
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STEPHEN HART, Ph.D. – *University of California, Berkeley* | Terrestrial microbial and ecosystem ecology; climate change in forest ecosystems
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JEFFERY JENKINS, Ph.D. – *University of California, Santa Cruz* | Natural resource management; public lands and protected areas
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VALERIE LEPPERT, Ph.D. – *Northwestern University* | Air particulate matter; environmental nanophases; energy nanomaterials
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YANBAO MA, Ph.D. – *University of California, Los Angeles* | Energy transport and thermal management in energy systems; water desalination
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COLLEEN NAUGHTON, Ph.D. – *University of South Florida* | Global food and water security; life cycle assessment; geographic information systems
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PEGGY O'DAY, Ph.D. – *Stanford University* | Environmental geochemistry; cycling and transport of inorganic contaminants
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MARK SISTROM, Ph.D. – *Adelaide University, Australia* | Evolution of bacterial and viral systems; microbial population change over time and space
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SAMUEL TRAINA, Ph.D. – *University of California, Berkeley* | Chemical transformations of pollutants; chemical speciation and toxicity
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A. LEROY WESTERLING, Ph.D. – *University of California, San Diego* | Applied climatology; climate-ecosystem-wildfire interactions
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JUSTIN YEAKEL, Ph.D. – *University of California, Santa Cruz* | Paleoecology; impact of diet on population and community dynamics
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