College of Engineering Chemical & Environmental Engineering

GRADUATE STUDIES

Striving for a sustainable world



RESEARCH FOCUS AREAS

- Atmospheric physics and chemistry
- Bioremediation
- Electrochemical processes
- Interface and colloid science
- Nanotechnology
- Renewable energy
- Semiconductor manufacturing
- Soft materials
- Water treatment and reuse

AFFILIATED CENTERS & INSTITUTES

 Center for Environmentally Sustainable Mining
Engineering Research Center for Environmentally Benign Semiconductor Manufacturing
Institute for Energy Solutions

- Superfund Basic Research Center
- Sustainable Bioeconomy for Arid Regions Center
- Water & Energy Sustainable Technology Center

EMPHASIS ON RESEARCH

\$5.5M Research expenditures

DEGREES

- PhD Chemical Engineering
- PhD Environmental Engineering
- MS Chemical Engineering
- MS Environmental Engineering
- ME Environmental Engineering





Courses were to the point and directly related to our field of work, and UA Engineering faculty are highly knowledgeable and always there to help.
Mojtaba Azadi Aghdam, WEST Center research assistant

Funding options throughout degree lifecycle

APPLICATION DEADLINES

- Fall: January 15
- Spring: June 30

CONTACTS

Adam Printz, Associate Professor Chemical Engineering Graduate Committee Chair aprintz@arizona.edu 520.626.6769

Reyes Sierra, Professor Environmental Engineering Graduate Committee Chair rsierra@arizona.edu 520.626.2896



We put a lot of time and energy into mentoring students and fostering leadership. That is a very important part of our job.

- Kim Ogden, professor and director of the Institute for Energy Solutions

Faculty Expertise

Andrea Achilli – achilli@arizona.edu membrane processes for water separation • desalination and water reuse technologies • forward osmosis and membrane distillation systems

Bob Arnold – rga@arizona.edu filtration and aquifer water reuse • trace organic chemicals in products derived from treated wastewater

Jim Baygents – baygents@arizona.edu electrochemical water treatment

Paul Blowers - blowers@arizona.edu life cycle assessment • applied quantum chemistry • student learning and retention

Jim Farrell – farrellj@arizona.edu contaminant transport through soil and groundwater • abiotic transformations of chlorinated solvents

Jim Field – jimfield@arizona.edu microbiology of inorganic contaminant biotransformation • anaerobic biodegradation of hazardous pollutants • bioremediation

Dominic Gervasio – gervasio@arizona.edu concentrated solar power • electrolytes for DC power supplies • nonplatinum catalysts

Roberto Guzmán – guzmanr@arizona.edu nanobiotechnology • affinity interaction technology • synthesis and modification of polymers

Kerri Hickenbottom – klh15@arizona.edu concentrate management • membrane processes for resource recovery from waste streams • life cycle assessment

Vicky Karanikola – vkaranik@arizona.edu optimization of materials, energy and cost for sustainable water and wastewater treatment - membrane processes at water-energy nexus - sensors for environmental applications Greg Ogden – gogden@arizona.edu biofuels

Kimberly Ogden – ogden@arizona.edu bioreactors for algae • removal of organics and metals from streams • water recycling and reuse

Adam Printz – aprintz@arizona.edu solar energy • polymeric materials • mechanical and chemical stability of flexible electronics

Erin Ratcliff- ratcliff@arizona.edu energy conversion and biosensing • organic and perovskite photovoltaics • solar fuels • printable biosensors • spectroscopy • electrochemistry • interface science

Eduardo Sáez – esaez@arizona.edu fate, transport and treatment of trace contaminants in water - transport of metals and metalloids by dust and aerosols

Suchol Savagatrup – suchol@arizona.edu responsive soft materials • biochemical sensors • interfacial and colloidal behaviors of complex emulsions

Farhang Shadman – shadman@arizona.edu nanoscale manufacturing • green semiconductor processing • water purification, reclamation and recycling

Reyes Sierra – rsierra@arizona.edu biological wastewater treatment and nutrient removal • microbial transformation of metals and metalloids

Armin Sorooshian – armin@arizona.edu air quality • aerosol science and technology • atmospheric chemistry and physics • field campaign research • remote sensing

Sylvia Sullivan- beginning Spring 2022 atmospheric modelling • ice nucleation • convective storm dynamics

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