Outreach projects for promoting STEM careers and the social appreciation of engineers.
Advisor: Joaquin Rodriguez Alonso, Chemical and Petroleum Engineering
Student: Sabrina Martin, Mechanical Engineering and Materials Science

**Metal distributions in Urban Soils and Green Infrastructure**
Advisor: Daniel Bain, Geology and Environmental Science
Student: Claire Burns, Environmental Science

**Assessing Environmental (In)justices in U.S. Public Housing Siting Decisions**
Advisors: Michael Blackhurst, University Center for Social and Urban Research
Randy Walsh, Economics
Student: Natalie Britton, Economics

**Exploring cryptic diversity in temperate forests: Do seed banks promote forest sustainability and resilience in wind-disturbed and logged temperate forests?**
Advisor: Walter Carson, Biological Sciences
Student: Edith Fields, Biological Sciences

**Sustainable Ocean in the Box**
Advisor: Lei Fang, Civil and Environmental Engineering
Student: Jamison Beveridge, Mechanical Engineering & Materials Science

**Improving the efficiency of microgrids by integrating weather forecasts into optimization models**
Advisor: Oliver Hinder, Industrial Engineering
Student: Zhihan Liu, Industrial Engineering

**Machine learning green chelating agents**
Advisor: John Keith, Chemical and Petroleum Engineering
Student: Elizabeth Niemi, Chemical and Petroleum Engineering

Advisor: Robert Kerestes, Electrical and Computer Engineering
Student: Lauren Bruckstein, Computer Science

**Using machine learning models to identify wildlife species in field recordings**
Advisor: Justin Kitzes, Biological Sciences
Student: Carolyn Tett, Biological Sciences and French

**Developing a wireless sensing system for in-situ seed imbibition monitoring**
Advisor: In Hee Lee, Electrical and Computer Engineering
Student: Jordan Athas, Electrical and Computer Engineering

**Simulation of FirstSolar Solar Modules**
Advisor: Paul Leu, Industrial Engineering
Student: Elizabeth Medvedva, Civil & Environmental Engineering

**Electrochemistry for a zero-waste chemical economy**
Advisor: James McKone, Chemical and Petroleum Engineering
Student: Todd Ackerman, Chemical and Petroleum Engineering
       Jared Coffelt, Chemical and Petroleum Engineering
Optical fiber diameter tracking via machine vision  
Advisor:  Paul Ohodnicki and Bo Liu, Mechanical Engineering and Materials Science  
Student:  Victoria Schmotzer, Mechanical Engineering and Materials Science

Environmental Justice Teaching  
Advisor:  Cassie Quigley, Department of Teaching, Learning and Leading, School of Education  
Student:  Sydney DuBose, Environmental Science

Data-Driven Vaccine Allocations (Parallelization and Cluster Computing)  
Advisor:  Amin Rahimian, Industrial Engineering  
Student:  Qingshi Sun, Industrial Engineering  
Shitao You, Industrial Engineering

Smarter Riversheds–real-time sensor networks  
Advisor:  David Sanchez, Civil and Environmental Engineering  
Student:  Heather Phillips, Civil and Environmental Engineering

Comparative Study of Plastic First Mile Policies  
Advisor:  Kay Shimizu, Political Science  
Student:  Emily Albrecht, Psychology

Analysis of impact of Connected and Automated operations on fuel consumption at signalized intersections  
Advisor:  Aleksandar Stevanovic, Civil and Environmental Engineering  
Student:  Fiyinfoluwa Odeniyi, Civil and Environmental Engineering

A novel process for purely thermal desalination  
Advisor:  Sachin Velankar, Chemical and Petroleum Engineering  
Student:  Michael Gresh-Sill, Chemical and Petroleum Engineering

Towards a Circular Economy: Chemical Recycling of Plastics Waste via Liquid Metal Catalysis  
Advisors:  Goetz Veser and Eric Beckman, Chemical and Petroleum Engineering  
Student:  Sean Graham, Chemical and Petroleum Engineering

Modular On-Demand Water Purification for Developing Countries (ChemE Cube)  
Advisor:  Goetz Veser, Chemical and Petroleum Engineering  
Students:  Michael Kane, Chemical and Petroleum Engineering  
Cara Klinger, Chemical and Petroleum Engineering  
Sydney Hansen, Chemical and Petroleum Engineering

Design spinel ferrite magnetic adsorbents for water purification  
Advisor:  Guofeng Wang, Mechanical Engineering and Materials Science  
Student:  Samuel Hunn, Mechanical Engineering and Materials Science

Machine learning of graded alloys made by additive manufacturing for power plant with high energy efficiency  
Advisor:  Wei Xiong, Mechanical Engineering and Materials Science  
Student:  Lauren Wewer, Mechanical Engineering and Materials Science

Electrically Reconfigurable Phase-Change Optics  
Advisor:  Nathan Youngblood, Electrical and Computer Engineering
Develop a novel multi-material 3D printing system
Advisor: Xiayun Zhao, Mechanical Engineering and Materials Science
Student: Elliot Kerachsky, Mechanical Engineering and Materials Science

Soft Robotics for Environmental Monitoring and Sampling
Advisor: Ravi Shankar, Industrial Engineering
Student: Zhen Wu, Computer Science