Undergraduate Courses Taught by Professor Sharp

**CEEN 301: Fundamentals of Environmental Science and Engineering I.** This undergraduate course covers the fundamentals of environmental science & engineering as applied to water resource management in the U.S. It covers environmental regulation and toxicology, material balance, reactor models, hydrology, environmental chemistry, and applications to water and wastewater treatment.

*Photo: Abandoned tailings pile and mine shaft (Idaho Springs, CO).*

**CEEN 330: Environmental Engineering Field Session (co-taught).** This undergraduate summer course is comprised of intensive, hands-on modules that are intended to develop environmental engineering problem solving and the application of laboratory and field skills. Through collaboration with the local nonprofit Clear Creek Watershed Foundation, we lead teams of students through projects aimed at assessing and developing solutions to the remediation of abandoned mines and the impact of metal loading on local watersheds.

*Photo: Undergraduate students characterizing an acidic, mining impacted wetland during summer field session.*

**CEEN 303: Environmental Engineering Laboratory (co-taught).** This undergraduate course introduces laboratory and experimental techniques used for generating and interpreting data in environmental science and engineering related to water, land, and environmental health. For one third of the course, we guide students in using microbial and molecular biology tools in environmental engineering applications such as bioremediation.