

REU Site: Engineering research in a liberal arts and entrepreneurship context

Soil and Water Remediation

Mentor: Prof. Sara Denison

Sustainable Catalytic Approaches for Soil and Water Remediation:

This project will introduce a student to environmentally responsible treatment strategies by evaluating catalytic or adsorptive materials such as modified clays, metal oxides or biochar for contaminant removal using low-energy processes. The student will help with creating and testing these materials for contaminant removal, characterize treated samples using accessible analytical techniques (such as XRD and ICP), and analyze performance and sustainability trade-offs. Through this work, they will gain hands-on experience with environmental chemistry and remediation methods, material preparation and testing, data analysis, and scientific communication.

[Learn more about Prof. Sara Denison](#)