

# Undergraduate Project in Dust Phosphorus Leaching

Dr. Janice Brahney

Determining phosphorus contributions to freshwater ecosystems from dust

Human activities in the southwestern USA have increased dust emission 5 fold over the historical average. Recent studies have shown dust can contribute significant amounts of phosphorus to aquatic ecosystems leading to eutrophication. Dust can contain phosphorus in both organic and inorganic phases, however it is unclear which fractions are soluble and to what extent. The student will gain experience in field and laboratory methods through 1) setting up and maintaining dust samplers as and 2) laboratory experiments to determine the amount and rate of phosphorus leaching from collected dusts.

The project will run through the Summer Semester.

The student should apply for either a Quinney College of Natural Resources Undergraduate Research Grant at:

[https://qcnr.usu.edu/undergraduates/involvement/undergrad\\_research/research\\_grants](https://qcnr.usu.edu/undergraduates/involvement/undergrad_research/research_grants)

Or an Undergraduate Research and Creative Opportunity Grant (URCO) at:

<https://urco.usu.edu/>

The application deadline for the URCO is February 15th at 5pm, the student should contact me with sufficient time to build their application package. There is no application deadline for the Quinney College of Natural Resources URG.