



## CZO REU/RET Distributed Site: Introducing Critical Zone Science to Students & Teachers

### WHERE IS THE CZO REU/RET SITE?

Participants will work in the Piedmont region of south-eastern Pennsylvania and northern Delaware and the Appalachian Mountains in central Pennsylvania.

### WHO SHOULD APPLY?

- Current undergraduates interested in the Earth Sciences.
- K-12 teachers interested in enhancing their Earth Sciences knowledge and taking it into the classroom.

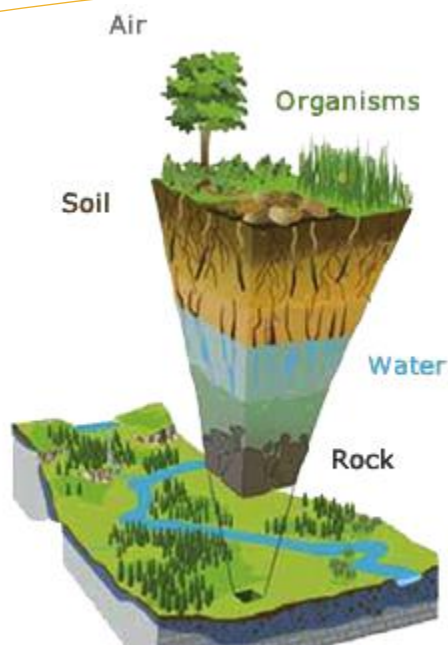
Due to funding agency guidelines, applicants must be U.S. citizens or permanent residents.

Underrepresented minorities, pre-major students, and students from non-research institutions are encouraged to apply.

Participants will receive a stipend, travel costs, housing, and meals.

### APPLICATION DEADLINE:

February 15, 2016



*The Critical Zone. Illustration modified from original by Jemez-Catalina CZO, [criticalzone.org/jemez-catalina](http://criticalzone.org/jemez-catalina).*

### WHAT IS THE CRITICAL ZONE?

The Earth's Critical Zone -- from the tops of the trees to the bottom of the groundwater -- is a constantly evolving boundary layer where rock, soil, water, air, and living organisms interact.

Water and atmospheric gases move through the porous Critical Zone, and living systems thrive in its surface and subsurface environments, shaped over time by biota, geology, and climate.

The CZO REU/RET Site will introduce undergraduate students and K-12 teachers to Critical Zone science.

### PROGRAM OVERVIEW

In June, participants will travel to Pennsylvania to gain a broad understanding of the geology, hydrology, ecology, soils, and land use of the Piedmont and Appalachian Mountain Valley and Ridge physiographic provinces. Working as a community of peers, CZO REU/RET participants will pursue interdisciplinary research to better understand the interconnectedness of Critical Zone processes.

Activities may include building and deploying environmental sensors and field instrumentation; geophysical surveys with ground penetrating radar; groundwater, surface water, and soil sampling; plant studies; GIS; and managing large data sets.



*For more information, visit [czo.stroudcenter.org/reu](http://czo.stroudcenter.org/reu)*

CZO REU/RET is funded by the National Science Foundation,  
NSF GEO/EAR #1263212.