

Multiple M.S. Opportunities in Volcanology and Geochemistry

I am seeking multiple M.S. students starting in Spring 2024 and Fall 2024 on funded research projects related to volcanology and geochemistry. These projects will be led by Dr. Jennifer Thines at New Mexico State University in Las Cruces, NM. Students with backgrounds and interests in igneous petrology, mineralogy, and geochemistry are encouraged to apply.

Project #1: Origin and age of rhyolite pipes near Datil, NM (beginning Spring 2024)

In this project, the M.S. will study the petrology of rhyolite pipes in the Cretaceous Crevasse Canyon Formation near Datil, NM. The petrology, age, and relationship of these pipes to nearby volcanic centers is currently unknown and discerning these will be the focus of the project. The project will involve petrologic and geochemical analyses including mineral, major and trace element, and radiogenic isotopic analysis.

A fully funded research assistantship is available for the first year and the student will hold a teaching assistantship for the second year. Review of applications will begin on November 1, 2023 for the position beginning in Spring 2024.

Project #2: Geochemical evolution and storage conditions of magmas (beginning Fall 2024)

There are two options for this project: (1) generation of large-volume silicic magmas from the Afro-Arabian large igneous province including opportunities for single crystal radiogenic isotope analysis, diffusion chronometry, thermodynamic modeling of fractional crystallization and assimilation, and geochronology; (2) petrology and geochemistry of lava flows south of Las Cruces in the Potrillo Volcanic Field including opportunities for field descriptions of lava morphology, and mineral, major and trace element, and radiogenic isotopic analysis.

This student will hold a teaching assistantship for both years. Applications for the Fall 2024 are due on February 15, 2024.

Information about the department:

The Department of Geological Sciences at New Mexico State University (NMSU) is located in Las Cruces, NM in the southern Rio Grande rift. With world-class geology right outside campus, we focus on field-based and lab-based teaching and research. The department offers B.S. and M.S. degrees in geology and consists of five faculty members active in a wide range of research topics. We host extensive analytical equipment, clean lab, rock preparation, and mineral separation facilities. More information about the department can be found at <https://geology.nmsu.edu>.

Students must hold a bachelor's degree in geoscience or closely related field by the time of appointment. The application should include: a personal statement, CV, unofficial academic transcripts, and contact information for three references. All applications must be submitted to <https://apply.nmsu.edu/apply/> for consideration. Review of applications will begin on November 1, 2023 for the position beginning in Spring 2024. Applications for the Fall 2024 are due on February 15, 2024. Questions regarding the application should be directed to Dr. Jennifer Thines (jthines@nmsu.edu), office phone: (575) 646-3795.