

ROCKIN' AROUND NEW MEXICO 2019

A Geology & Mineral Education Workshop for Teachers

July 10-12

Socorro, New Mexico

**Co-sponsored by NM Bureau of Geology and Mineral Resources,
NM Department of Homeland Security & Emergency Management,
and the Master of Science for Teachers program at New Mexico Tech**

To register for this teacher workshop, complete this form and mail it to the address below. Electronic copies of this registration can be sent to cynthia.connolly@nmt.edu. You will receive a confirmation letter with details to help you plan for this workshop. There is a \$40.00 application fee, and each participant is responsible for travel and lodging. You must pay for your food and lodging up front. **If you live in New Mexico**, you will be reimbursed for per diem and mileage after the event. We can accommodate active teachers only, as space is limited. Preference will be given to teachers enrolled at *New Mexico Tech's Master of Science for Teachers program*. Other applicants will be enrolled on a space-available basis, or may be placed on a waiting list.

Teachers who wish to take this class as professional development, please attach a check for \$40.00 payable NMBGMR to help cover workshop materials

PARTICIPANT REGISTRATION FORM:

Name _____

Address (home) _____

Name of school _____

E-mail address _____

Phone (home) _____ (cell) _____

What grade level and subject(s) do you teach? _____

Details about New Mexico Tech graduate credit for ST-540 REGISTRATION:

- Are you interested in receiving the optional one hour of credit from New Mexico Tech? _____ (yes/no)
- If yes, and you have taken a class at NMT before, please provide your student ID # _____ [The MST office will then register you for ST-540. A scholarship will cover tuition, fees and the \$40 materials cost mentioned below, unless you are notified otherwise]
- If yes, and you are not currently an NMT student, you will be contacted by e-mail shortly with registration instructions.

Questions?

Please contact Cynthia Connolly at (575) 835-5264 or cynthia.connolly@nmt.edu.

Mail this registration form to: **Rockin' Around New Mexico**

**New Mexico Bureau of Geology and Mineral Resources
801 Leroy Pl. Socorro, NM 87801**

***Non-credit participants please remember to include your \$40 check.**

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July 10-12, 2019

Socorro, New Mexico

Rockin Around NM: ST-540 (optional Masters of Science for Teachers graduate credit)

This workshop is designed for teachers interested in expanding their knowledge about geoscience and natural hazards and this year is based out of the **Socorro**. During the workshop, the participants will have in-class and field instruction about the relationships between earthquakes, magma bodies, and faults in determining landscape dynamics and stability in New Mexico. Special environmental geology topics will include a continuation of our studies about the important relationship between hydrology and subsurface structural features, including sediments, faults, and fractures.

Our theme this year will be *Water: past, present, and future*. Teachers will collect real field data that will be used assess riparian recovery from the Tiffany Fire. In the field, teachers will assist measuring well-water-and relative surface water levels and in the classroom they will use collected and archived data to determine flow direction.

The Rio Grande Rift volcanism and faulting began 24 to 36 million years ago, and continues today. Along the Quebradas Back Country Byway, teachers will hike .25 miles down to Bursum Springs to study landscape features including folding and faulting that define the Rio Grande rift in Socorro County. We will then drive to the Chupadera Copper Mine, where we will discuss groundwater geochemistry and how it formed the deposits of chalcocite. Subsequent uplift and weathering has altered some of the chalcocite to azurite and malachite as part of the natural weathering of the deposit. In class, teachers will identify collected rock samples.

On day three, we will examine seismic risks in New Mexico, including those caused by liquefaction, and how to prepare for tremors by learning how to “Shake Out”. We will also discuss how phone apps such as “My Shake” can turn users into walking seismometers and assist with earthquake detection and warning.

This workshop is open to educators who are actively teaching, and pre-service teachers. **All participants must submit the NM Bureau of Geology registration form so we can keep you informed and help you plan for the workshop.** Non-credit participants need to send the \$40 fee for materials with the application. Participants receiving credit will have the \$40 fee covered by the tuition/fees scholarship through the MST office, unless otherwise noted.

Participants are responsible for their own food and lodging during the workshop. They will then be reimbursed for per diem plus mileage (for those who drive more than 35 miles to the workshop) by NM Department of Homeland Security and Emergency Management. **Only New Mexico teachers can apply for travel reimbursements.**

Although graduate credit is optional, first priority for registration will be given to students at New Mexico Tech. The course is *ST-540 Rockin' Around New Mexico*. Call Megha Khandelwal at 575-835-5470 or email megha.khandelwal@nmt.edu if you would like information about the Masters of Science for Teachers Program at New Mexico Tech.

To register as a professional development class, please contact Cynthia Connolly at New Mexico Bureau of Geology and Mineral Resources, New Mexico Tech at (575) 835-5264 or e-mail to cynthia.connolly@nmt.edu for more information.