Twenty-three students from Missouri University of Science and Technology spent spring break exploring the ancient civil and geological engineering marvels of Peru.

The students – 13 undergraduates and 10 graduate students – visited Lima, Peru’s capital, as well as Cusco and the fabled mountaintop Incan city of Machu Picchu during March 28-April 1. There they conducted field trips focusing on geological and geotechnical engineering aspects of the Inca civilization.

“For the undergraduate students, we were trying to give them more of an introduction into the amazing ancient geological and geotechnical engineering of Peru,” says Dr. Neil Anderson, professor of geological sciences and engineering at Missouri S&T. “The graduate students, under the direction of Dr. Ronaldo Luna, looked at features from a much more comprehensive perspective.”

Anderson and Luna, professor of civil, architectural and environmental engineering, coordinated the trip, along with Dr. Robert Laudon, professor emeritus and former chair of geological sciences and engineering.

During the trip, the students visited stone temples such as Coricancha, in Cusco, and toured archeological sites where multi-ton sculpted granite blocks had been transported by a culture that used neither wheels nor pack animals. They also visited agricultural terraces that extend hundreds of feet up the sides of steep mountains, ancient quarries and the ruins of Machu Picchu, the ancient mountaintop “lost city” known as an architectural and engineering marvel.

The students were enrolled in one of two courses on geotechnical engineering practices of Incan civilization: a three-hour graduate-level course for civil engineering and geological engineering students, and a one-hour course for undergraduate students in geological engineering. Both courses are offered through Missouri S&T’s distance and continuing education program.