

# Future educators explore EarthCaches at SIUE, community invited to participate

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EDWARDSVILLE - Southern Illinois University Edwardsville's expansive 2,600-acre campus offers ample hands-on learning opportunities for students preparing to teach the next generation of STEM (science, technology, engineering and mathematics) learners.

This semester, a cohort of elementary, early childhood, and special education majors are exploring the physical elements of SIUE's geography through their foundations of science course. The students are taking their coursework in earth science outside, and learning about the natural and human processes that have shaped SIUE's landscape by visiting [EarthCache sites](#).

“EarthCaches are locations of geological significance that individuals can visit to learn about the Earth’s interesting topography and landforms,” explained course instructor Colin Wilson, with the SIUE STEM Center. “We’ve created EarthCache sites around campus and in the community that offer unique learning opportunities.”

The course coincides with a \$299,547 National Science Foundation-funded project, entitled “EarthCaching for Pre-Service Teachers: Examining Attitudes and Intentions towards Informal Science Learning.” The collaborative project involves researchers from the SIUE STEM Center and the College of Arts and Sciences’ Departments of Geography and Physics.

“We’re considering how the integration of EarthCaching activities into a science course for pre-service teachers impacts the learning of geoscience content, as well as attitudes towards and intention to use informal learning experiences, both personally and in teaching,” explained principal investigator Sharon Locke, PhD, director of the SIUE STEM Center.

Sophomore elementary education major Lindsey Rockers, of Breese, appreciates the chance to get out of the classroom and become inspired by SIUE’s landscape.

“This class allows us to explore the campus and learn through interactive experiences,” Rockers said. “I aspire to have an engaging, collaborative classroom someday, so this is exactly the type of lesson that will prepare me to offer that to my future students.”

Special education major Austin Uhls agreed, saying learning by doing is incredibly impactful.

“I’m excited to take this engaging lesson and use it in the future,” Uhls said.

Other campus and surrounding community members can learn through local EarthCaches, too. SIUE researchers have created six sites, including two on campus, one virtual, and three in the surrounding area.

Individuals are invited to visit [SIUESTEMCenter.org/earthcaching](https://SIUESTEMCenter.org/earthcaching) for instructions on finding the sites and completing the activity.

Those who find at least five of the six sites and complete the educational materials are encouraged to submit their responses to the SIUE STEM Center by email or online form. In celebration of [International EarthCache Day](#), the first 100 individuals to finish the EarthCache exploration activity will receive a commemorative Geocoin.

“We hope community members will take advantage of this fun outdoor learning opportunity,” Wilson said. “We’re always glad to engage with students and surrounding community members to promote STEM learning.”

The Southern Illinois University Edwardsville [Center for STEM Research, Education and Outreach](#) comprises an independent group of researchers and educators, innovating ways to engage students and the public in science, technology, engineering and math (STEM). Within the SIUE Graduate School, the Center brings together research faculty, graduate students and practitioners to conduct education research. The Center contributes educational expertise to SIUE undergraduate classes and provides professional development for K-12 teachers. The Center boasts a significant library of equipment and resources, which are available for loan at no cost to campus and regional instructors. For more information, visit <https://www.siue.edu/stem/about.shtml> or contact STEM Center Director Sharon Locke at (618) 650-3065 or [stemcenter@siue.edu](mailto:stemcenter@siue.edu).

Central to SIUE’s exceptional and comprehensive education, the [College of Arts and Sciences](#) offers degree programs in the natural sciences, humanities, arts, social sciences, and communications. The College touches the lives of all SIUE students helping them explore diverse ideas and experiences, while learning to think and live as fulfilled, productive members of the global community. Study abroad, service-learning, internships, and other experiential learning opportunities better prepare SIUE students not only to succeed in our region's workplaces, but also to become valuable leaders who make important contributions to our communities.