



Creating excitement and opportunity

Thousands of students across the country participate in internships every year. But few can say they will be working at the deepest underground laboratory in the United States.

“It’s a super-cool thing to be able to tell people,” said Christel Peters, communications intern from Black Hills State University (BHSU). “It’s not your typical internship, not your typical office environment. I’m writing stories and involved in Neutrino Day planning. And there’s opportunity to learn from so many people. On my first trip underground I learned about the unique geology of the area from David Vardiman. He made rocks sound exciting!” Vardiman is a geotechnical project engineer at Sanford Lab.

This year, six undergraduate students—five from South Dakota School of Mines and Technology (SDSMT) and one from BHSU—work with scientists, engineers, communications and safety and health experts.

The internship program is a big part of Sanford Lab’s education and outreach efforts. “We do this to give undergraduate students real-life experiences in their field,” said June Apaza, director of Education and Outreach. “Internships help students figure out what they want to do. And they get to work with people



From left: Justin Van Keulen, mechanical engineering; Miranda Stadel, chemical engineering; Daniel Tronstad, physics; Christel Peters, mass communications; and Richard Hovdenes, mining engineering. Not pictured: Randi Seiwald, mining engineering.

from around the world in a unique environment.”

Daniel Tronstad, a physics major, and Miranda Stadel, a chemical engineering major, are students at SDSMT and both are working with Sanford Lab’s science department. Right now, they are focusing on connecting two particle counters to the network so researchers can track the amount of dust and other particles underground. But they’ll also learn about the experiments taking place on the 4850 Level.

“I wanted this internship because I wanted to work at a place where there are big experiments,” Tronstad said. “It’s awesome that I get to work where the LZ

and DUNE experiments are going to be.”

Internships are all about the experience.

“I’ve lived in South Dakota my whole life and I’ve always known about Sanford Lab,” said Stadel, who just finished her sophomore year. “I hope to learn a lot more about physics, gain real-life experience and see what it’s like to work in a

facility like this.”

Peters, a native of Michigan, has been in the Black Hills for three years. She loves learning about science.

“I’m interested in science, but sometimes it goes over my head,” she said. “When the light bulb does go off, I get excited. I’d like to learn how to do that for others.”

Sanford Lab Internships

Chris Bauer Engineering Internships: Created in memory of a former electrical engineer for Sanford Lab, this internship is available to two undergraduate engineering students. One is given preference in electrical engineering.

Dave Bozied Internships: Open to South Dakota residents and students attending South Dakota universities who major in physics, chemistry, geology, engineering, science education or communication or related disciplines.