Fifth-graders at Highland Elementary School got a close-up look at a 3D printer in a presentation held in the cafeteria on Tuesday, March 4. SUNY Ulster assistant professor Sal Ligotino, who coordinates the college’s industrial and surveying technology programs, visited the elementary school to share his expertise with the youngsters.

It was all about getting the students interested in pursuing careers someday in the science, technology, engineering and mathematics (STEM) fields. STEM careers are among the fastest-growing job category of the 21st century, Ligotino said. In his role representing SUNY Ulster’s STEM careers program, Ligotino told the students that New York is a leading state for STEM careers available in surveying and technology, illustrating with slides of the type of work done by engineers, including a hybrid car plane and artificial limbs. Ligotino also brought in an optical device used in surveying and a small 3D printer to demonstrate its abilities correctly answered.

On the same day as the presentation in Highland, STEM careers happened to be in the national news, as well, as President Barack Obama’s proposed 2016 fiscal budget was released with provisions signed to strengthen STEM education nationwide. If approved, the budget will focus federal efforts on increasing STEM activities outside the traditional classroom, recruiting and retaining 100,000 STEM teachers over the next decade and broadening participation in STEM to minorities and women.

According to Ligotino, women are well-suited to careers in STEM fields. He noted that the girls he teaches at SUNY Ulster are among the best students he has because of their “attention to detail.”

The presentation included lots of info on the careers available in surveying and technology, illustrated with slides of the type of work done by engineers, including a hybrid car plane and artificial limbs. Ligotino also brought in an optical device used in surveying and a small 3D printer to demonstrate its ability to create small dimensional parts. He produced a few medallions with the school’s “huskies” logo molded into them that he gave out as prizes for questions correctly answered.

Ligotino explained how a 3D printer works, saying he’d copied the huskies logo right off the school district’s website and programmed it into the printer, which builds items with layer after layer of plastic.

When a student asked how much the small 3D printer costs, Ligotino said it can be purchased online for about $2,000. Larger and more sophisticated printers can cost upwards of $40,000, he said. When asked about the 3D printers at SUNY New Paltz that have been in the news lately, Ligotino said he hopes that the schools in the area will be able to pool their resources in the future and extend opportunities in the new technologies across the region.

Last week at Highland Elementary School Sal Ligotino, coordinator of Industrial Technology and Surveying Technology at SUNY Ulster, visited the school to share his expertise in engineering, drafting, architecture and surveying with fifth grade students.