

Internship at Springfield Armory inspires STCC graduate

SPRINGFIELD – When she saw an opening for an internship at the Springfield Armory National Historic Site, Maeliz Colon was intrigued but she didn't think she had the right background.

"The description was that you have to be a history major or archaeology major," said Colon, a 2019 Springfield Technical Community College graduate, who is transferring to the University of Massachusetts in Amherst this fall.

"I'm an engineering major," she said.

But encouraged by Professor Beth McGinnis-Cavanaugh, her faculty advisor at STCC, Colon applied, interviewed for the position and was offered the summer internship.

And, it turned out, she learned more about science, technology, engineering and mathematics (STEM) than she ever imagined.

Colon learned about chemical reactions involving black powder, which was used in the early firearms on display at the Springfield Armory Museum. She also learned about the process of manufacturing guns, which involved some of the same principles she was exposed to at STCC. Gun makers used interchangeable parts and strove to find efficient manufacturing methods, which are concepts taught in engineering classes.

As she pored through historical reports at the Armory, Colon began to see more and more connections to her days learning about engineering at STCC.

"I noticed the story of the Armory is very relevant to engineering," Colon said, speaking from the Armory Museum one summer day. "A lot of engineering took place here, but they don't call it that. They call it machining."

Colon joined the Armory as an intern on June 10 as part of the American Conservation Experience's Cultural Resources Diversity Internship Program



Turley Publications Photo courtesy of James Danko
STCC graduate Maeliz Colon stands next to a sign for the college and the Springfield Armory National Historic Site. She interned at the Springfield Armory Museum this summer.

offered through the National Park Service. The program provides career exploration opportunities for diverse current college students and recent graduates ages 18 to 35 in historic preservation and cultural resources work. The Springfield Armory is one of 21 national parks to receive an intern through the program. Colon worked 30 hours per week.

Amy Glowacki, chief of interpretation at the Armory, said Colon's background in engineering and science made her a strong candidate. As part of her summer internship, Colon is drafting reports for park rangers that combine science and history. The rangers use her research to educate students and share with school teachers.

"At the National Park Service, we're not all about history," Glowacki said. "Science is a key part of the stories that we tell. Maeliz is helping us to create these avenues to tell the stories to our students."

The STCC campus sits on the Springfield Armory National Historic Site, which was founded in 1777 and is managed by the National Park Service.

"We were interested in interviewing Maeliz because of our partnership," Glowacki said. "Opening the doors and welcoming a STCC student was the number one priority."

STCC President John B. Cook said, "The relationship between the college and National Park Service is long-standing, and we are cheered by this wonderful example. With appreciation to the Armory and Professor McGinnis-Cavanaugh, it is tremendous to see STCC students apply STEM perspectives in such a unique setting."

Colon's faculty advisor at STCC, McGinnis-Cavanaugh, professor of engineering and physics, taught her in several classes. McGinnis-Cavanaugh also serves as faculty advisor to the Society of Women Engineers at STCC and remembered Colon being quite active with the

organization.

"Maeliz made a great decision by pursuing the internship at the Springfield Armory Museum," McGinnis-Cavanaugh said. "The legacy of the City of Springfield and the Springfield Armory in particular is one of innovation. Engineers design innovations that impact and benefit every sector of society. Thus, this internship is a perfect match for an engineering student and a meaningful opportunity for interdisciplinary learning and collaboration."

McGinnis-Cavanaugh said she has no doubt about Colon's ability and drive to succeed.

"I'm proud of Maeliz for taking what was in her mind a risk," McGinnis-Cavanaugh said. "I am thrilled at how she has pushed her engineering education beyond the classroom. Maeliz will benefit from this experience on many levels as she continues her engineering education at UMass and will be a better engineer because of it."

Raised in Holyoke, Colon, 21, graduated from STCC in May, earning an associate degree in engineering and science transfer. She now lives in Springfield.

She received a National Science Foundation Scholarship in Science, Technology, Engineering and Mathematics (S-STEM) from UMass College of Engineering. The scholarship program provides support for low-income academically talented students.

Colon hopes to one day work as a professional engineer, but will no doubt carry the lessons she learned as an intern at the Springfield Armory.

"This was at the top of the list of internships I applied for," Colon said. "I saw there were engineering internships in Connecticut, but I really wanted this one because it was different. It gave me a different perspective. It showed me that science is part of history."