

Synthetic cadaver helps students get a feel for human anatomy at Quincy College in Plymouth

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Photo Caption: Professor Dennis Burke explains some of the intricacies of the SynDaver to students at Quincy College's Plymouth campus. Below, Burke opens the torso of the synthetic cadaver so students can touch the organs within.
Alyssa Stone photos/Wicked Local

PLYMOUTH -- The new girl in the science program at Quincy College is getting a lot of healthy exposure.

SynD (pronounced Cindy) is a synthetic cadaver that features all the bones, joints, muscles, organs and tendons found in normal human anatomy. Science students at Quincy College's Plymouth campus in Cordage Park started working with SynD this week to enhance their understanding of the intricacies of the body and see and feel how the body works.

Future nurses in Dr. Dennis Burke's physiology and anatomy class were the first to lift the SynDaver out of the water in her dip-tank home. They peeled away her synthetic skin in order to study how muscles look, feel and interact.

"We just started (studying) muscles, so the timing is perfect," Burke said Wednesday.

After seeing the synthetic cadaver pitched on the popular television show "Shark Tank," Burke led the push to have the college buy one for the Plymouth campus. Burke had just watched that "Shark Tank" episode when Quincy College officials asked if anyone had any ideas for the next budget cycle.

"I said, 'I do,'" Burke said.

Quincy College is the first two-year college in Massachusetts to purchase a SynDaver. Lasell College bought the first SynDaver. The University of Rhode Island has four. Burke visited the Rhode Island school to see if the SynDaververs were as impressive as they seemed,

The SynD purchase was part of a \$2 million expansion and renovation that celebrated Quincy College's 25th anniversary of serving South Shore residents at a campus in Plymouth.

The renovation expanded the campus footprint at Cordage Park by 45,000 square feet. A new nursing wing containing simulation lab space was built.

SynD is housed in a newly built 950-square-foot lab. The lab includes traditional anatomy and physiology models, microscopes and dissection equipment, plus the metal tank in which the water-based synthetic cadaver is kept when not in use. The water is treated with standard pool chemicals and must be changed every two or three weeks.

Plymouth College paid \$65,000 for the SynDaver that it chose, the Piper model. The female cadaver is 5 feet 4 inches long and has functional musculoskeletal, cardiovascular, respiratory, gastrointestinal, endocrine and nervous systems.

A heart pump pushes synthetic blood through the system of veins and arteries, and it can be regulated to test students' ability to read a pulse. Students can also use the synthetic cadaver to practice cardiovascular resuscitation and the giving of intravenous injections.

Burke said students in his classes dissect animals to develop medical skills, but the SynD provides a better representation of live tissue than the dead tissue of a real cadaver. Students can also manipulate muscles and tendons and see how other parts of the body are affected.

Robert Bostrom, associate dean of academics at the Plymouth campus, said the SynD purchase helped the school remain true to its mission of providing student-centered education.

"Bringing cutting-edge technology to the Quincy College at Plymouth campus allows us to provide a better learning experience and world-class education for our students who are committed to a career in helping others - be it as a phlebotomist, physical therapist or nurse," Bostrom said.

He said the college is considering allowing SynD to be used in non-credit certification, skill and professional development programs for the public.

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