

Quantum leap for life sciences

HCC's new facility gives students exposure to state-of-the-art training, equipment

By DUSTY CHRISTENSEN
Staff Writer

HOLYOKE — Some of the new technology on display inside Marieb Hall at Holyoke Community College is the kind of thing most people only see at research universities or in the movies. But for HCC students, the new lab is a vital opportunity to train on equipment they might see frequently in their future jobs.

The new technology and the lab it sits in are part of the school's Center for Life Sciences, a 13,000-square-foot facility that opened in September. The \$4.55 million center was

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paid for by a \$3.8 million grant from the Massachusetts Life

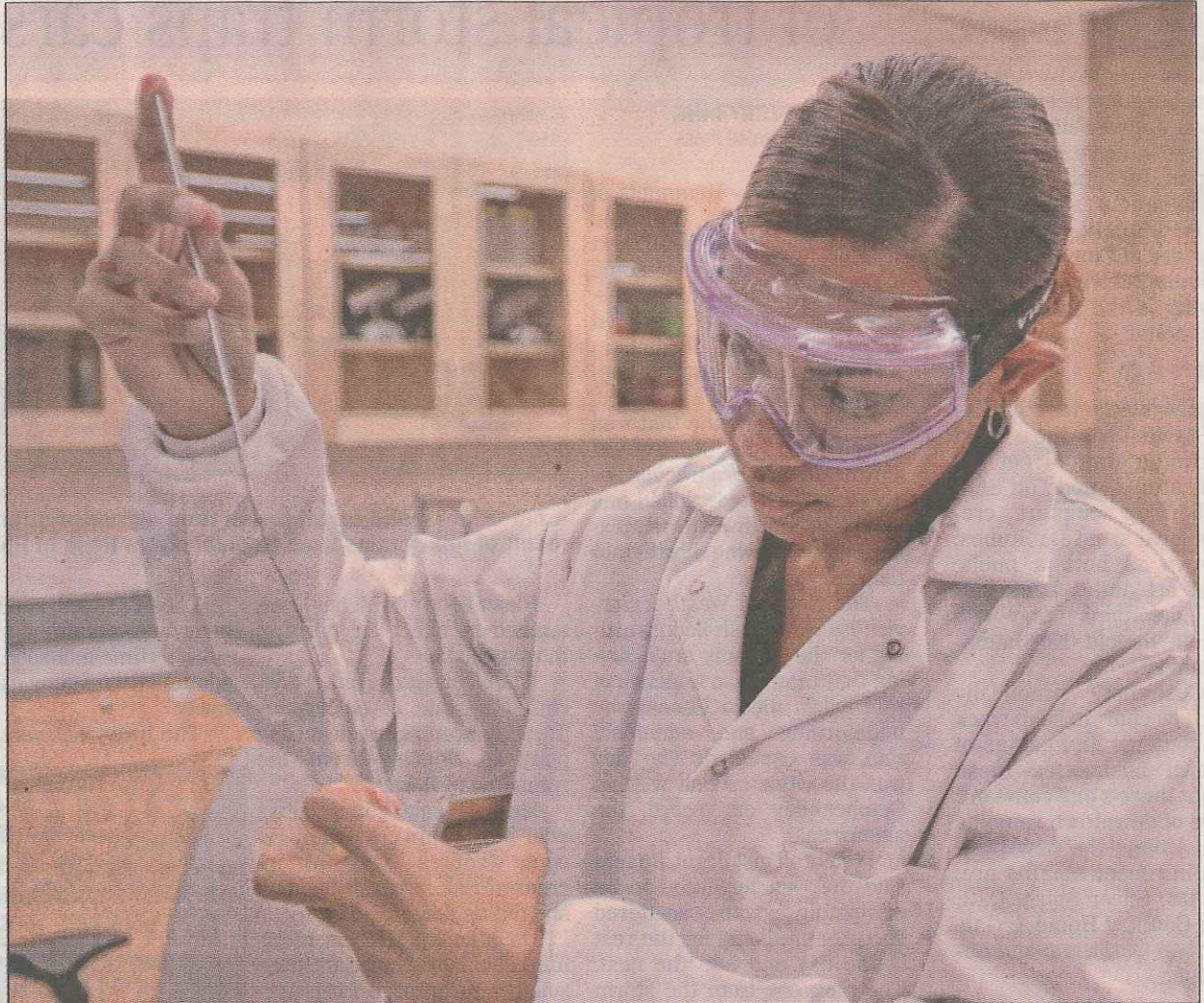
Sciences Center, a quasi-public agency that oversees a more than \$1 billion investment in the life sciences. HCC's new life science center includes a certified instructional cleanroom where students can train in a laboratory setting similar to what they might see working in the biotech industry.

"They've been so enthusiastic about it," Emily Rabinsky, biotechnology coordinator and biology professor at Holyoke Community College, said about her students' reaction to the new equipment.

The center includes a lab for instruction, a prep room for laboratory work, new equipment like a research-grade fluorescent microscope, a new lecture hall and a common space where students can congregate, as well as the new sterile cleanroom.

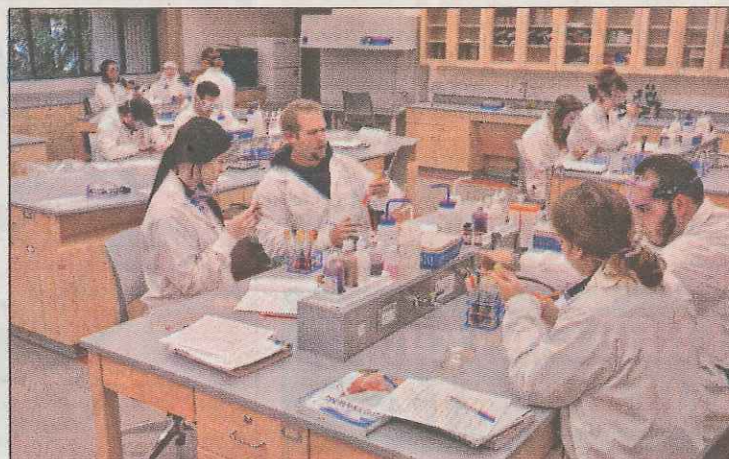
Rabinsky said the state-of-the-art equipment and space give the community college students a chance to gain valuable experience.

"Especially in research, that's particularly important," Rabinsky said. She said a lot of early opportunities students see in the biotech

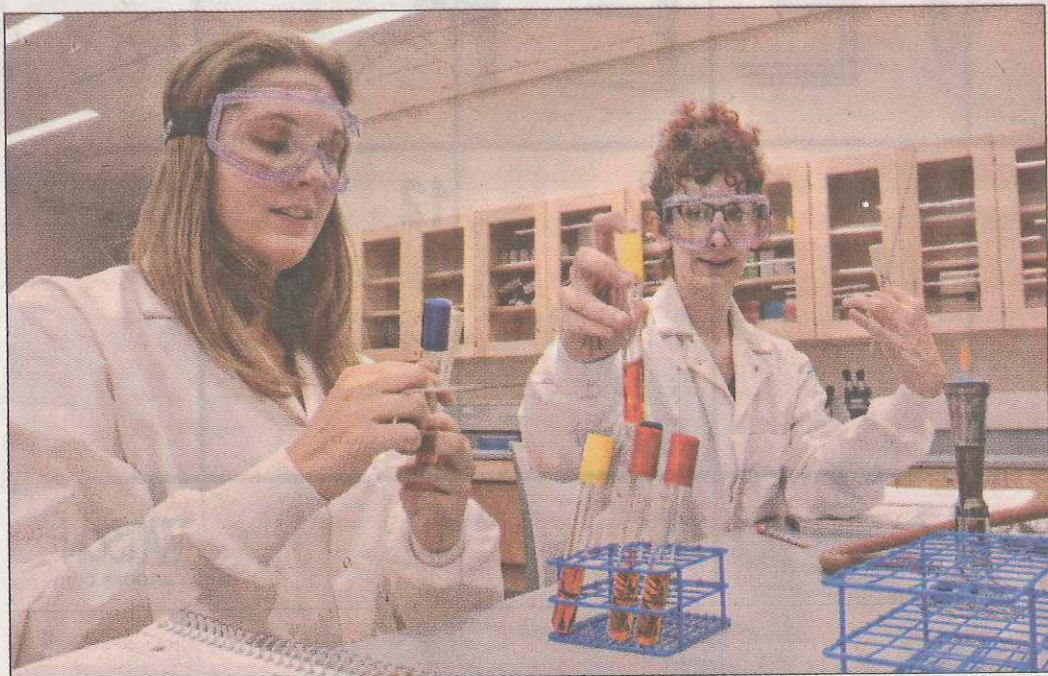


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Yamaira De Jesus, of Holyoke, above, transfers bacteria into an auger during a microbiology class at the new Center for Life Sciences at Holyoke Community College, Tuesday. Below left, students work during a microbiology class at the new center. Below right, professor Emily Rabinsky, who is the biotechnology coordinator at HCC, talks about an incubator that is part of a biotech and genetics lab in the new center.



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Katie Love, left, of Granby, and Violet Gayzaglan, 31, of Northampton, use inoculation loops to transfer bacteria cultures during a microbiology class at the new Center for Life Sciences at Holyoke Community College, Tuesday.

Life sciences bloom at HCC

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field already require some degree of experience. "But how do you get that experience?"

The center, in other words, will put HCC students on an equal or better footing than their peers at four-year institutions, Rabinsky said.

Several students were already getting comfortable with some of the processes they might end up using one day in the field. In professor James Knapp's microbiology class on Tuesday afternoon, students were busy transferring bacteria cultures into augers, which will eventually allow them to analyze the biochemical profiles of those bacteria.

"I get to stand back and... let them work a little independently," Knapp said when asked the benefits students receive from the new space and equipment.

One of the students getting hands-on experience on Tuesday was Yamaira De Jesus, 28, of Holyoke. She was busy sterilizing her inoculation loop, which is used to transfer the bacteria cultures. De Jesus said she is now much more comfortable doing that work.

"It's new," she said of the process. "But we've been doing it for the past three weeks now."

De Jesus, like many students in the microbiology class, is in the pre-nursing program. Others taking advantage of the center are studying biology, biotechnology and nutrition.

"They've learned how to handle microbes reasonably safely now," Knapp said.

Students can take a non-credit professional development course this fall on cleanroom technology, which is used in the biotech industry

for things like pharmaceutical research or making medical devices. Eventually, Rabinsky will teach a course called "cell culture and protein purification" that will take place in the cleanroom.

"We have space to train students just how to work inside of these," Rabinsky said, pointing toward the cleanroom sitting behind observation glass.

With the state investing heavily in the biotech industry, Massachusetts is quickly solidifying its role as a hub for biotech companies. Rabinsky said she expects the field to continue to grow, and for student interest to follow suit.

"Exciting and daunting," was how Rabinsky described the new opportunities she and her colleagues are now able to provide students.

Dusty Christensen can be reached at dchristensen@gazettenet.com.