



Students get hands-on biotech training Quincy College offers certificate program



Photo by Ted Fitzgerald

SEEKING A NEW CAREER: From left, Belinda Jean-Calixte, Amir Nedjadi, Sybille Cherismo and Danny Quinn test cultures in a Quincy College lab as part of a new biotech certificate program.

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By: Paul Restuccia

Sybille Cherismo didn't even know what biomanufacturing was before learning about and enrolling in a new certificate program at Quincy College that is training students for careers in the biotech industry.

"I was studying nursing, so I knew I wanted to be in something in the sciences that helps people," said Cherismo, 25, of Brockton. "There's a lot to learn and everything is fast, with new courses every seven weeks."

Ten students are currently enrolled in the first class of the Biotechnology and Compliance certificate program that started in January. Students take a series of seven-week to 15-week courses three days a week in quality control microbiology and biochemistry quality assurance, and upstream (making of bacteria) and downstream processing (purifying the biosynthetic), as well as how to comply with FDA requirements.

The students come to the program through a free 23-week college prep program offered by Boston's JVS that's targeted to low- and moderate-income individuals. Students in the program's biotech career pathway took math, science and college readiness classes in the JVS Bridges to College and Careers program to prepare them to enter the certificate program at Quincy College.

Amir Nedjadi, 31, of Brookline, was unemployed and took the JVS college prep program with an eye toward studying biotech.

"I'm glad to be learning again and on the cutting edge of science in a field that helps people and is promising, career-wise," Nedjadi said.

Quincy College built out a fully equipped lab for the program last year, supported by a \$3 million federal grant and \$645,000 in state funds, including a recently announced \$500,000 grant from the Massachusetts Life Sciences Center for more lab equipment. Local biotech company advisers such as Shire Human Genetic Therapies in Lexington, Xcellerex (G.E. Healthcare) in Marlboro and Takeda Millennium Pharmaceuticals in Cambridge have donated equipment and also helped shape the certificate curriculum.

"What sets this program apart is that students train on state-of-the-art equipment used in the industry today," said program instructor Isso Bayala, who has worked at AstraZeneca, Wyeth and other big pharmaceutical companies. "Hiring our graduates will save them months of training time."

Students are training on single-use bioreactors, a technology that allows for easy disposal of products without the need for sterile rooms, which also allows companies to change production lines quickly.

"This is the only program in the state that trains students in single-use manufacturing," said Bruce Van Dyke, chairman of the Biotechnology and Compliance program at Quincy College, who has been a professor at the school for 12 years and before that worked in the biotech industry.

“Companies tell me that when our students come out of this program they will be months ahead of other new hires,” Van Dyke said.

Amos Cordon of Dorchester likes the course so far “because it is hands-on.”

“I’m good at math and science and would like to have a career in biotech,” said Cordon, who has worked in the insurance industry for 17 years. “My long-term goal is to get into plant DNA.”

Danny Quinn of Quincy is another older student making a career change.

“I didn’t know anything about biotech, but decided to try something completely out of my comfort zone,” said Quinn, 58, who most recently worked for the TSA. “It’s a whole new language to learn, but I’m taking a leap of faith.”

Tuition for the certificate program is \$8,000, but most students receive financial aid.

“What’s great is that for \$8,000 you can have a career in biotech. Considering what other students are paying for their educations and the debt they are accumulating, this is nothing,” Van Dyke said.

Shamistha Chowdhury, 34, has two children now in school and wants to have a career of her own.

“I have some relatives in the biotech field and I would like to do it too,” said Chowdhury, who lives in Medford. “There’s a lot of studying but I like the work.”

Certificate students will graduate in September and will qualify for entry-level jobs as biomanufacturing lab technicians doing cell culture, purification or quality control. Van Dyke says graduates will earn around \$40,000 per year.

And the jobs are out there. A Massachusetts Life Sciences Industry Entry Level Employment Demand report says local companies plan to add 393 new jobs in biopharmaceutical manufacturing by 2016, plus more hires to fill vacated positions.

Students in the Quincy certificate program not only learn the biomanufacturing processes, but will also receive help with cover letters, resume writing, handling interviews and job placement.

“We’re already in touch with recruiters to promote our students and I am starting to put in calls to biotech companies to place them,” Van Dyke said.

The next biotech certification program at Quincy College starts in July with students currently enrolled in the JVS college prep program.

There will be two nine-month programs every year, with a class also starting next January.

This summer, Van Dyke will help improve the hands-on training by setting up a state-of-the-art quality control lab with equipment donated by Shire.

“As soon as biotech companies hear about what we’re doing they want to be a part of it,” Van Dyke said.