ST. PETERSBURG COLLEGE

Local healthcare provider finds quality employees in SPC’s Biomedical Engineering Technology students

“[THE PROGRAM] HAS EXCEEDED OUR EXPECTATIONS.”

Walter Barrionuevo, Director, Clinical Engineering Services, BayCare Care Health Inc.
St. Petersburg College’s Biomedical Engineering Technology Program Fills Industry Need

Local Florida healthcare providers have struggled with recruiting Biomedical Technicians-BMETs, dealing with turnover and challenges filling these positions.

St. Petersburg College (SPC) developed its Biomedical Engineering Technology program, a two year, 62 credit program, to build a pipeline of talent to fill positions in the biomedical industry. As part of the Community College Consortium for Bioscience Credentials (c³bc), St. Petersburg developed this program to fit the needs of local healthcare organizations, including BayCare, a leading not-for-profit healthcare system that connects individuals and families to a wide range of services at 15 hospitals and hundreds of other convenient locations throughout the Tampa Bay and central Florida regions.

The clinical engineers at BayCare reached out to SPC after accepting one of their engineering technology students as an intern. They quickly realized that a traditional Engineering Technology degree did not adequately equip students with the unique skill set that is required by the highly specialized environment of a clinical engineering department. SPC immediately began having extensive discussions about what core skills are required by the field, and outlined what a structured internship would look like.

Carlos Villafane, a highly experienced BMET III at BayCare, was quickly identified as the best person to act as advisor/consultant to the program. Villafane had previously taught BMET classes in Puerto Rico, and published a handbook on basic BMET skills. Giovanna Taylor, director of Biomedical Technology-Medical Devices Program at St. Petersburg College, and Villafane met on a regular basis while she began to learn about the field and formulate the curriculum structure for the program. As president of the regional biomedical society, Carlos was able to quickly connect Taylor to other professionals in the field who eventually provided subject matter expertise related to curriculum and core skills. They also helped form the core of the industry advisory committee as well as provide course instruction.

“The relationship with BayCare has been invaluable. As the largest healthcare provider in this region, new BMETs entering the field never have a chance to work for the organization because BayCare positions are highly sought after by job seekers and only the most experienced technicians are considered for them.”

- Randell Orner, Operations Manager, Clinical Engineering Services, BayCare Health System Inc.

“We offer training for the students, which we have here, at BayCare. We put our own employees in technical vendor training classes but also include St. Pete’s students. We are making an investment in them.”

- Randell Orner, Operations Manager, Clinical Engineering Services, BayCare Health System Inc.
BayCare has struggled to find workers in the biomedical industry. Due to the lack of candidates, the organization has had to go outside of Florida to fill positions. After beginning interviews with various colleges, they found the students did not possess the skills they needed. This is how their relationship with St. Petersburg began.

Because of their strong relationship, BayCare has been able to give input on designing SPC’s program to meet their own needs. “The last 3 years have been fantastic. One of our employees is an instructor at SPC, so we are able to mold the program a little more based on needs of the industry,” said Walter Barrionuevo, Director of Clinical Engineering Services, BayCare Health System Inc. “The quality of candidates from SPC is much higher. This relationship helps us, and it helps them.”

BayCare has hired a total of six students as biomedical employees in the last 18 months, making nearly 5% of their total biomedical department St. Petersburg graduates. Speaking on sourcing their biomedical department staffing needs with St. Petersburg students, Randell Orner, operations manager of Clinical Engineering Services, BayCare said, “We know what skills set they come out with, and we have the instructor that can offer real-world experience to the students. They come out with excellent transferrable skills.”

BayCare employees feel strongly about committing their time to the SPC program for the greater good of the industry. BayCare has donated nearly $100,000 in medical equipment to the program and holds a quarterly open house for students in the program, as well as those considering the biomedical technology field as a career. “The Clinical Engineering industry is expected to grow 6% in the next 10 years as there will be a greater demand for healthcare services with the use of increasingly complex medical equipment. We need to make sure that enough technical resources are available to meet this demand. By working together with SPC, we will ensure that our industry will have qualified candidates in the years to come,” Barrionuevo said. He is confident in their ability to staff the Clinical Engineering department because of the relationship with SPC.

BayCare uses St. Petersburg College as a talent supplier. Because of the relationship we have developed, our entry-level students have the unique opportunity to begin their professional careers with the best clinical engineering department in the region,” Taylor said. “More importantly, because of the dedication of the BayCare engineering team to the development of SPC’s program, they have been able to start a program from nothing to over 170 students in just a few years, and the numbers continue to grow.”
Brendan Welch, a biomedical engineering technologist at BayCare, previously worked at a UPS contact center as a corporate liaison for their larger enterprise accounts. Although he felt his role was meaningful there, Brendan wanted to have a role in which his actions had a direct and tangible impact on the quality of life of others. With a technological skill set and a desire to improve the quality of life of others, Brendan found biomedical engineering to be the perfect fit. “The St. Petersburg program helps you understand what you do and how it impacts the rest of the facility and the patients that use those devices. I gained an understanding of the implications of every action you take, and how to see it from a 360 perspective,” Brendan said. “There are a lot of programs dedicated to electronics, engineering, and manufacturing, but there was nothing that actually prepared you to be successful within the healthcare field in biomedical engineering. When I reviewed the program St. Petersburg was developing, I found it to be the most comprehensive and specialized, which is why I chose SPC.”

BAYCARE EMPLOYEE SPOTLIGHT

School: St. Petersburg College

Students enrolled: 175+

Number of BayCare Hires: 6

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About the C3BC:
The Community College Consortium for Bioscience Credentials (C3BC) is a multistate consortium of 12 community colleges engaged in an educational and training initiative funded by the U.S. Department of Labor under grant TC-23761-12-60-A-37. Under the C3BC, 12 Community Colleges nationwide coordinate to support the following strategies to assist grant participants to obtain employment in high-wage, high-skill occupations, such as biotechnology, biomanufacturing, and medical devices:
1. Harmonize a set of core skills across the biosciences and embed stackable and latticed, industry-recognized credentials into training for biosciences jobs that will create career pathways for TAA-eligible and other displaced workers.
2. Improve and expand recruitment, testing and aptitude assessment for trade-impacted workers in tandem with the public workforce system. This will help fill industry demand for biosciences workers.
3. Expand and improve the delivery of education and career training programs at the Community College level. Accelerate completion time in certificate/credentialing programs through improved assessment of prior learning, focused support services, the removal of institutional barriers and development of technology.
4. Build community college capacity for biosciences education and training that meets local, state and national employer needs across subsectors of laboratory skills, biomanufacturing and medical devices.

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Community College Consortium for Bioscience Credentials (C3BC):

St. Petersburg College Hiring Partners: