

Medical device skills training for entry-level workers: Help is on the way

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Guest Column

The U.S. medical device and biotechnology industries are booming – but there are some red flags on the horizon.

The industry's biggest convention is the BIO International Conference, held in Philadelphia on June 15-18 at the Pennsylvania Convention Center.

The tri-state region is home to 80 percent of the U.S. pharmaceutical industry and also home to a major cluster of medical device manufacturers.

But, with all its strengths, the sector faces some serious weaknesses – especially when it comes to human talent.

According to a skills gap study conducted by Deloitte Consulting LLP and the Manufacturing Institute, shortages and skills deficiencies in production roles (e.g., machinists, technicians, operators, etc.) are having a significant impact on manufacturers' ability to expand operations or improve productivity.

Along with an insufficient supply of candidates with manufacturing-related skills, most medical device companies find it incredibly difficult to hire skilled labor in the areas of research, quality control, regulatory oversight, and facility management.

Each of these job categories tends to require specific skill sets and knowledge that are not developed in the current national education environment. Furthermore, candidates who do possess these skill sets but have gained them in other industries – such as aerospace or automotive – are often perceived as being unqualified for a related position at a medical device company because they lack specific medical device experience.

To help the industry address its workforce supply deficiencies, the Community College Consortium for Biosciences Credentials (c3bc) a US DOL Trade Adjustment Assistance grant initiative has worked on making a national set of skill standards in the area of medical devices and the core biosciences based on industry needs. These standards will be presented at the Community College Program at the BIO International Conference this week.

Beginning in 2012, with respect to medical devices, the aim of this initiative was two-fold, to both identify a set of medical device industry standards for five functional areas: manufacturing, regulatory, quality, instrumentation, and engineering research, and to develop curricula for a national network of community colleges that will elevate the skills of entry-level workers.

This past spring, c3bc completed the requirements set forth for the identification of medical device skill standards for entry level workers. Working closely with both key players in the medical device industry and community college partners clustered in Minnesota, Indiana, Massachusetts, Pennsylvania, Florida, California, and North Carolina, c3bc developed new industry standards for the five functional areas.

Over the next year, we expect to see new curriculum based on the skill standards to be implemented and tested in the c3bc consortium and its partner colleges across.

The curriculum will harmonize what community college students are taught with what the medical device industry needs. When all is said and done, the medical device industry will have access to a highly-skilled pool of potential employees in their area, and community college students will know that they are receiving an education that will prepare them for their futures in the medical device industry.

The authors will be presenting on this topic at the BIO International Conference in Philadelphia on June 16.

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