



Finding Your Path as a Chemical Technical Professional

If being the go-to person for handling chemicals, conducting experiments, and running analyses appeals to you, this article is for you.

By Carolyn Beans

Lakesha Perry, an engineering technician at the National Institute of Standards and Technology (NIST) in Gaithersburg, Md., runs tests to analyze hydration reactions in concrete.

About halfway through college, Jennifer McCulley discovered a new passion: instrumentation. She analyzed metals for a research project using a flame atomic absorption spectrometer, a high-performance liquid chromatograph, and other specialized tools.

"I can't really explain it, but I fell in love with doing that," she says. She knew that she wanted to use these instruments in industry.

The role of a chemical technical professional is both hands-on and essential, says McCulley. "We are the ones actually prepping samples, doing the instrumentation work."

In some cases, she adds, they're also analyzing data. You'll find chemical technical professionals in a wide range of fields, including the food, chemical, petroleum, pharmaceutical, and consumer products industries.

If being the go-to person for handling chemicals, conducting experiments, and running analyses appeals to you, learn more about how chemical technical professionals keep their labs—and careers—running.

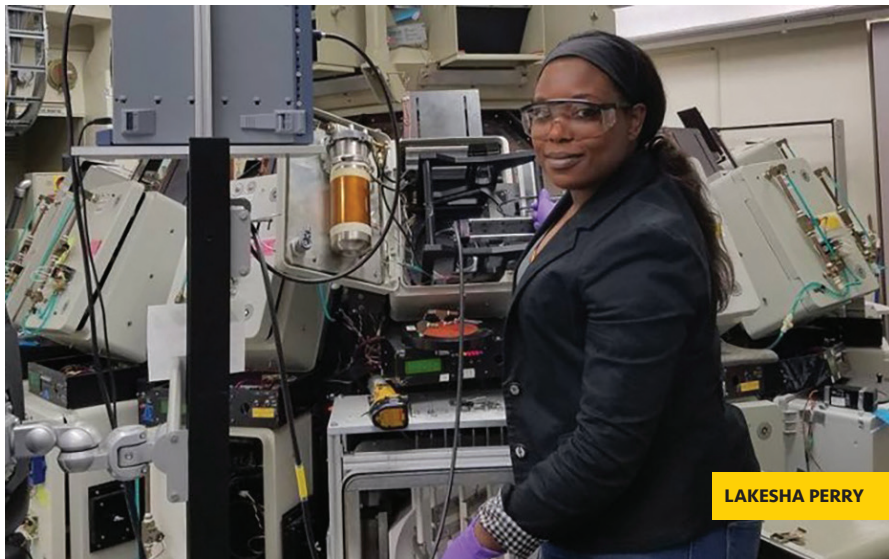
WHAT DOES A CHEMICAL TECHNICAL PROFESSIONAL DO?

One of McCulley's first jobs was at Campbell Soup Company in Camden, N.J. She analyzed the company's products to determine the correct nutritional information to put on labels using techniques such as high-performance liquid chromatography, gas chromatography, and inductively coupled plasma atomic emission spectroscopy.

Daniel Fonseca launched his career as a chemical technical professional at United Chemical Technologies in Bristol, Pa. There, he developed and published a procedure to extract and analyze dyes from fish tissue to help a client in the textile industry determine whether the company's dyes were impacting fish.

Taking charge of a project and interacting with customers aren't necessarily part of the job description for chemical technical professionals, says Fonseca. But his company was small, so he wore many hats requiring different levels of expertise.

Fonseca later moved to Dow Coating Materials in Colleagueville, Pa., where, until a recent promotion, he helped analyze and develop new products for the paper coating industry.



LAKESHA PERRY



DANIEL FONSECA

ON THE JOB

When Fonseca started as a chemical technical professional at Dow, a typical week involved receiving instructions from a project leader, setting up his workspace, running all of the tests he was directed to do, and then analyzing the

data to deliver to the project leader at the end of the week.

Fonseca feels a sense of satisfaction knowing that his work as a chemical technical professional has resulted in products that many people use in their daily lives—from cereal boxes to disposable coffee cups.

And despite the routine nature of the work, a good chemical technical professional must also be ready for surprises. "You might have a rush sample coming in. You may have an instrument that is down," says McCulley. "You have to troubleshoot some of those. That can be a very fun aspect."

GETTING STARTED AND ADVANCING

If you want to launch your career as a chemical technical professional, you may want to enroll in a community college with programs aimed at chemical technology. Advisers in the field recommend contacting your chemistry instructors to share your career goals.

Experts suggest looking for internships and research experiences, which can give you an edge when entering the job market. Community



JENNIFER MCCULLEY

colleges are often helpful in guiding students into real-world work experience programs.

Historically, an associate of arts degree was often a minimum requirement. The field is becoming more competitive, but there are still opportunities for associate degree

holders. LaMotte, a water-quality testing company, hires both two- and four-year degree holders for chemical technical professional positions, says Maria Coakley, vice president of human resources at LaMotte.

Once you land your job as a chemical technical professional, you may choose to stay within the role that you were hired to perform. But if you want more responsibilities or leadership experiences, a little extra effort could get you there.

McCulley and Fonseca advanced by taking on challenges that go beyond their defined roles. Perry is also passionate about ensuring underrepresented populations are aware of job possibilities in the fields of science, technology, engineering, and math.

Perry mentors interns and regularly talks with students at Historically Black Colleges and Universities to spread the word about opportunities as a chemical technical professional. Because of her passion and initiative, she is now transitioning to a new role in the academic affairs office at NIST, where she'll manage internship programs for college students.