What is a Laboratory Technician & What do They Do?

A laboratory technician, lab tech for short, is a person who performs the practical hands-on work in laboratories. Lab techs work in diverse settings, which include healthcare, industry, research, and educational institutions. Lab techs may work in a wide variety of fields such as medicine, biology, chemistry, electronics, geology, and the environment. The main duties of a lab tech normally include:

- Receiving, processing and analyzing samples. Depending on the work setting, samples may consist of blood and tissue (health care); air, water and soil (environmental/public health); chemical products (chemical/pharmaceutical industry); etc. CFPUA lab techs receive, process and analyze water and wastewater samples.
- Conducting tests on new products or experimental processes
- Using, cleaning and maintaining various types of equipment
- Handling and storing chemicals and other materials
- Administrative tasks such as maintaining notebooks, documenting procedures and lab results, and preparing orders and invoices

CFPUA’s Water/Wastewater Laboratory

CFPUA’s Laboratory Technicians work in an on-site laboratory and perform a variety of tasks. Every day they take samples of water from CFPUA’s two water plants as well as from homes and businesses. The samples are tested to confirm that the water is free of any harmful substances and is safe to drink. Samples are also collected from CFPUA’s three wastewater treatment plants. Wastewater samples are tested to show that we are treating the wastewater to meet required water quality standards and that it will not cause harm to animals, fish or people who swim in our waterways.

Lab technicians use microscopes to look at very small plants and animals that live in the water. They also use other tools and equipment including: pH meters, colorimeters, dissolved oxygen meters, spectrophotometers, and different types of glassware like pipettes, flasks, and beakers to perform experiments and other lab tests.

CFPUA’s lab techs perform many different chemical and microbiological tests. In fact, during the past year, our lab staff took almost 24,000 samples and almost 80,000 lab tests were performed to measure various substances or for the presence of bacteria. Very strict rules and regulations must be followed to ensure proper testing and documentation.

Lab techs work usually work inside, in a laboratory, but they do have to go outside every day to collect samples (despite the weather). CFPUA staff collect and test samples every single day, even on holidays and during hurricanes and other emergencies. Lab techs must also be very safety conscious - a laboratory can be a dangerous place if you’re not careful. Labs are full of hazardous and potentially dangerous materials. There are compressed gases; flammable, toxic and corrosive chemicals; electrical equipment; biological hazards; and, the potential for cuts or burns from broken or hot glass/equipment. Anyone working in a lab is required to wear protective equipment such as lab coats, gloves and safety glasses or goggles. If you like science, chemistry, and conducting experiments, then perhaps you’d like to be a Laboratory Technician when you grow up.

Each and every day, CFPUA treats, distributes and collects millions of gallons of water and wastewater throughout Wilmington & New Hanover County and it employs many dedicated, professional employees. Each month we’ll introduce a different job or group within the Cape Fear Public Utility Authority. Our employees strive to provide the safest and highest quality water and wastewater services while being environmentally responsible. Learn more about the Cape Fear Public Utility Authority and the services we provide by visiting our website: www.cfpua.org.