

City of San Jose

LABORATORY TECHNICIAN II (5113)
LABORATORY TECHNICIAN II (PART TIME) (5114)

CLASS PURPOSE

Under general supervision, performs standardized qualitative and quantitative physical, chemical, biological and bacteriological analyses of water, wastewater, industrial waste and related materials. Performs related work as required.

TYPICAL DUTIES AND RESULTS (Any one position may not include all the duties listed, nor do the examples cover all the duties which may be performed.)

Collects varied wastewater samples from specific locations. May assist in sample collection programs for special or short-term projects.

Prepares standard chemical solutions, titrant, reagents, stains and bacteriological media; cleans and sterilizes glassware, equipment and supplies.

Performs physical measurements, including pH, temperature, conductivity, salinity and turbidity.

Performs both difficult and routine chemical, biological and bacteriological analyses of water, wastewater, industrial wastes and related materials, following specific procedures.

Conducts biomonitoring procedures to determine acute and chronic toxicity values.

Assists in training subordinate technicians in routine laboratory analyses; may assist in directing the work of others in day-to-day activities in a specified program area.

Sets up, calibrates, performs maintenance, operates and performs chemical determinations utilizing a variety of complex instrumental laboratory equipment.

Assists chemists in conducting research and experiments to solve problems; may perform specialized work assignments in a defined area.

Assists in ordering, receiving and maintaining an adequate supply of chemicals and related equipment.

Compiles and records data for a variety of logs, reports, and records, performing calculations as required.

Maintains clean and organized work areas, equipment and devices.

DISTINGUISHING CHARACTERISTICS

This is the second level class in the two class Laboratory Technician series, where incumbents perform both difficult and routine qualitative and quantitative laboratory determinations upon water, wastewater, industrial waste and related materials. This class differs from the lower class of Laboratory Technician I in that incumbents of the latter work under closer and more direct supervision, and perform the more general and less complex laboratory procedures and tasks. This class may provide lead direction and training to incumbents of the lower class of Laboratory Technician I. Assignments may be to any shift in an around-the-clock operation, and incumbents must also be available for work on weekends and holidays.

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QUALIFICATIONS

Minimum Knowledges, Skills and Abilities

Knowledge of the care, maintenance and sterilization requirements of laboratory glassware, equipment and apparatus.

Knowledge necessary to conduct physical measurements.

Knowledge of the fundamentals of chemistry and mathematics; basic principles of qualitative and quantitative analysis.

Knowledge of standard and sophisticated laboratory equipment, instruments and procedures.

Ability to perform routine and difficult chemical mathematics and statistics.

Ability to perform basic and complex biological, bacteriological and chemical analyses.

Ability to lift 50 pound sample containers.

Competency Knowledges, Skills and Abilities

Knowledge of basic supervision and management.

Knowledge of basic laboratory safety procedures.

Knowledge and ability to perform routine and difficult physical, biological, bacteriological and chemical determinations with regard to the environmental characterization of water, wastewater, industrial waste and related materials.

Ability to perform biomonitoring procedures to determine acute and chronic toxicity values.

Ability to maintain sample logs, records and reports.

Ability to prepare a variety of chemical and biological solutions.

Ability to train and direct the day-to-day activities of others in specific project areas.

Ability to operate accurately and precisely modern and sophisticated analytical instrumentation.

Training And Experience

Any combination of training and experience equivalent to two (2) years of college chemistry or related field, with at least 20 semester units in chemistry, and one (1) year experience equivalent to a Laboratory Technician I with the City of San Jose.

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