

City of San Jose

LABORATORY TECHNICIAN I (5111)  
LABORATORY TECHNICIAN I (PART TIME) (5112)

CLASS PURPOSE

Under immediate 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.)

Inspects screening equipment, sampling equipment and collects varied wastewater samples from specific locations. May assist in sample collection programs for special or short-term projects.

Prepares samples for chemical analysis, including pH adjustment, sample homogenization and acid digestion.

Prepares bacteriological growth media and cleans and sterilizes glassware, equipment and supplies.

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

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

Conducts vertebrate biomonitoring procedures.

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 stocks of distilled and deionized water in designated areas.

Maintains clean and organized work areas, equipment and devices.

DISTINGUISHING CHARACTERISTICS

This is an entry level class in the two class Laboratory Technician series, where incumbents perform routine qualitative and quantitative laboratory determinations upon water, wastewater, industrial waste and related materials. This class differs from the higher class of Laboratory Technician II in that incumbents of the latter work more independently, perform a greater variety of more complex laboratory procedures, and may provide lead direction and assistance to incumbents of the Laboratory Technician I class. Assignments may be to any shift in an around-the-clock operation, and incumbents must also be available for work on weekends and holidays.

LABORATORY TECHNICIAN I (5111)

LABORATORY TECHNICIAN I (PART TIME) (5112) - (continued - page 2)

## 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 laboratory equipment, instruments and procedures.

Ability to perform routine chemical mathematics and statistics.

Ability to communicate verbally and in writing.

Ability to perform basic biological, bacteriological and chemical analyses.

Ability to lift 50 pound sample containers.

### Competency Knowledges, Skills and Abilities

Knowledge of sample preparation techniques.

Knowledge of basic laboratory safety procedures.

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

Ability to perform vertebrate biomonitoring procedures.

Ability to collect wastewater samples effectively, accurately and precisely.

Ability to maintain sample logs, records and reports.

### Training And Experience

Any combination of training and experience equivalent to two (2) years of college chemistry or related field, with a minimum of 20 semester units in chemistry.