

CLASS SPECIFICATION

SAN DIEGO CITY CIVIL SERVICE COMMISSION

INSTRUMENTATION AND CONTROL TECHNICIAN TRAINEE – 1521

DEFINITION:

Under immediate supervision, and continual instruction in a planned training program, to perform a variety of increasingly responsible tasks associated with designing, installing, testing, adjusting, modifying, and maintaining fixed and portable electronic and telemetry systems and equipment; and to perform related work.

DISTINGUISHING CHARACTERISTICS:

This is the entry-level classification in the Instrumentation and Control Technician series.

*** EXAMPLES OF DUTIES:**

- Learns to design, install, test, adjust, modify, and maintain digital and logic circuitry, microprocessor controlled devices, and elements and components such as programmable logic controllers, process control equipment, telemetry recording devices, sensors, and controllers for a wide variety of water and wastewater treatment process instruments and devices;
- Operates computer terminals, portable programming units, or other complex electronic test equipment like spectrum analyzers to analyze and troubleshoot instrumentation and control systems, instrumentation interface with process control computers, and process control problems;
- Designs, modifies, and tests complex relay logic instruction sequences in the form of computer programs to monitor and control water or wastewater treatment processes;
- Assists with performing mathematical computations for calibrating instruments and determining values of inputs and outputs in computer programs;
- Assists with working with vendors, control computer hardware and software specialists, and plant operating and engineering personnel in determining process parameters, technical specifications for new and existing installations, and other technical matters regarding digital unit process control systems;
- Maintains records of work performed.

MINIMUM QUALIFICATIONS:

Please note: the minimum qualifications stated below are a guide for determining the education, training, experience, special skills, and/or license which may be required for employment in the class. These are re-evaluated each time the position is opened for recruitment. Please refer to the most recent Job Description for updated minimum qualifications: <https://www.governmentjobs.com/careers/sandiego/classspecs>.

- * **EXAMPLES OF DUTIES** performed by employees in this class. The list may not include all required duties, nor are all listed tasks necessarily performed by everyone in this class.

Successful completion of 30 semester/45 quarter college-level units, which must include completion of at least 15 semester/22.5 quarter college-level units in Telemetry, Electronics, Electrical, or Instrumentation; **OR** one year of full-time experience assembling, installing, and maintaining microprocessor-based control equipment, electronic instrumentation and control equipment (e.g., distributive control systems or programmable logic controllers), security systems, video cameras, access control systems, or telemetry equipment; **OR** an equivalent combination of the education and experience as specified above equaling one year.