

**San Jose · Evergreen Community College District  
Classified Job Description**

**Position:** Instructional Laboratory Technician III,  
Astronomy, Physics, & Earth Sciences

**Department:** Science

**Location:** Evergreen Valley College

**Date:** December 12, 2018

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**POSITION PURPOSE**

Under the general supervision of a Dean or assigned administrator, performs comprehensive logistical support services for Astronomy, Physics, and Earth Science instructional programs by providing materials, supplies and equipment for lecture, laboratory (including Montgomery Hill Observatory), and other activities within the discipline. The position requires the use of special techniques and equipment in the production of materials.

**DISTINGUISHING CHARACTERISTICS**

This is the journey level in the Instructional Laboratory Technician class series. In addition to performing the duties of the Level II, positions in this class are assigned a wide variety of technical and often complex tasks relating to the preparation and maintenance of laboratory equipment and materials. Work involves a significant degree of independence, requiring a thorough and complete familiarity with all aspects of the laboratory and curriculum in which laboratory experiments and exercises are conducted. Positions in this class provide a more comprehensive support service than Level II because of the number of disciplines served, the variety of courses, or provision of support to courses with extensive use of technical equipment, preparation of materials, or more complex support in the use of living specimens. Incumbents of positions within this class may also prepare or produce instructional materials that require special skills and abilities in contrast to the II level which involves skills that could be learned easily on the job. This class may serve as a lead to others providing similar support services. Positions assigned to this class are distinguished from the next higher level of Instructional Laboratory Technician IV in that the work of the Level III is less administrative in nature.

General supervision or direction is provided by academic management, supervisory personnel, or by an Instructional Laboratory Technician IV. Technical and functional supervision may also be provided by academic personnel.

**KEY DUTIES AND RESPONSIBILITIES:**

1. Discuss planned laboratory (including MHO) activities with Instructor and determine what materials and equipment will be needed at what point, in what order, and in what quantities.
2. Prepare and maintain cultures, solutions, reagents, and specimens, and set up equipment to be used in science laboratory experiments, exercises, practicals, and demonstrations.
3. Ensure the readiness of 20 Dobsonian-mount telescopes for ASTRO-010L lab sections.
4. Assist instructional laboratory personnel or supervise student workers in classroom exercises.
5. Coordinate the issuance of laboratory equipment and materials in accordance with established controls and procedures.
6. Utilize proper safety precautions and procedures in handling all types of laboratory specimens, chemicals, equipment, and hazardous waste.
7. Assemble and test new laboratory and astronomy equipment and apparatus.

8. Perform mathematic computations necessary to calculate appropriate concentrations of experiment ingredients and calibrate laboratory equipment.
9. Maintain, test, calibrate, and perform preventive maintenance on scientific laboratory equipment, including MHO; request repairs as necessary. Provide routine alignment and balance of the TMB and C14 telescopes.
10. Maintain and clean laboratory and MHO equipment as necessary. Collimate and clean mirrors of all reflecting telescopes every other year or when needed. Inspect and maintain proper functioning of the “go to” and tracking systems, filters, and CCD cameras.
11. Maintain security and ensure the safe and proper handling, storage, and labeling of hazardous materials and hazardous waste which may include performing any departmental inspections as required by regulatory agencies.
12. Obtain and maintain Material Safety Data Sheets.
13. Provide technical guidance, assistance and training to laboratory personnel in technical laboratory procedures and equipment usage.
14. Train and show students and new faculty the proper and safe methods and procedures for laboratory and MHO equipment operation and materials handling.
15. Work directly with vendors and suppliers as appropriate.
16. Provide information on needed supplies, equipment, and materials during the budget preparation process.
17. Maintain records, logs, and files on inventories, activities, and supplies used and monitor assigned budget accounts.
18. Assist in the development and application of new laboratory class aids and materials.
19. Establish a schedule of field trips of classes and visitors groups to MHO; ensure that facilities at the MHO are clean and proper to receive students and scheduled visitors.
20. Maintain and test rock-cutting machines allocated to the Earth Science courses.
21. Provide support to community and local school outreach activities.
22. Perform other related duties to the position as assigned.

## **EMPLOYMENT STANDARDS**

### **Knowledge of:**

1. Principles including aseptic techniques, practices, materials, nomenclature, equipment, and instruments used in astronomy, physics, and earth science laboratories.
2. Astronomy and telescopes.
3. Preventive maintenance techniques and methods to ensure the operation of assigned equipment.
4. Proper safety precautions and procedures utilized in handling all types of laboratory hazardous waste.
5. Modern office practices and procedures including filing and the operation of office equipment

including personal and on-line computers.

**Skills and Ability to:**

1. Perform preventive maintenance, calibration, and minor repair on assigned equipment.
2. Perform assigned duties with a significant degree of independence, observing proper and safe procedures and techniques.
3. Apply language skills to read and interpret documents such as safety rules, operating and maintenance instructions, and procedure manuals; write routine reports and correspondence; and speak effectively before groups of faculty or students.
4. Apply mathematical skills to calculate figures and amounts such as discounts, proportions, percentages, concentrations, and volume; apply concepts of basic algebra and geometry.
5. Utilize reasoning skills to solve practical problems and deal with a variety of concrete variables in situations where only limited standardization exists; interpret a variety of instructions furnished in written, oral, diagram or schedule form.
6. Effectively communicate and interact with persons of diverse backgrounds and abilities.
7. Establish and maintain cooperative working relationships with those contacted in the course of work.
8. Lift and move up to 50 pounds.

**Experience and Education:**

1. A Bachelor's degree from an accredited institution, or three years related experience/training, or equivalent combination of education and experience including college level course in astronomy, physics, and/or earth sciences.
2. Experience with Astro-photography, telescopes, and imaging processing.
3. Experience with managing observatories or planetariums.
4. Demonstrated sensitivity, knowledge and understanding of the diverse academic, socioeconomic, gender, cultural, disability, and ethnic backgrounds of groups historically underrepresented, and groups who may have experienced discrimination.
5. Success integrating diversity as appropriate into the major duties outlined in the job description and in the duties listed in the District's hiring policy; or demonstrated equivalent transferable skills to do so.

Board Approved: 12/11/18

Salary Range: 76

EEO Category: 2B3 – Technical/Paraprofessional