

SOUTHWESTERN COMMUNITY COLLEGE DISTRICT

CLASS TITLE: INSTRUCTIONAL LAB TECHNICIAN-SCIENCE (OPTION CLASS)

BASIC FUNCTION:

Under the direction of the Dean, Science/Math, perform complex technical work related to physical or life sciences; oversee the operation and maintenance of a complex instructional laboratory including the stock and prep rooms.

DISTINGUISHING CHARACTERISTICS:

The Instructional Lab Technician-Science classification is an option class covering assignments to a physical or life science laboratory. The specific abilities and requirements for each option do not allow transfer from one assignment to the other.

REPRESENTATIVE DUTIES:

Incumbents in both options will be required to perform the following duties:

Screen, select, train, evaluate and provide work direction for laboratory assistants and student workers. *E*

Prepare and issue materials and equipment for student use; monitor and maintain records of materials and equipment on loan to or checked out by students and instructors. *E*

Maintain stock rooms, laboratories, prep areas and other assigned areas in a safe, clean and orderly condition; encourage awareness of and oversee the proper use of facilities and safe practices. *E*

Organize, prepare and maintain laboratory procedures manuals. *E*

Maintain a variety of files and records regarding instructional materials, inventories, purchase orders and equipment repairs; perform general clerical duties as needed. *E*

Assist in preparation of the preliminary laboratory budget; project estimated needs, supplies and requests; monitor budget expenditures.

Test, adjust, maintain and perform minor repairs including necessary calibrations to apparatus and equipment; send equipment out for major repairs.

Perform related duties as assigned.

The following duties are representative of each option:

PHYSICAL SCIENCE

Arrange for proper storage and disposal of toxic, caustic or flammable chemicals. *E*

Assign and maintain records of student lockers; assess charges for lost, damaged or broken equipment and follow-up with billing. *E*

Prepare, label and maintain adequate quantities of stock solutions and reagents. *E*

Use and operate a variety of technical equipment and measuring devices including burets, volumetric glassware, pH meters, melting point apparatus, analytical balance, multimeter, spectrophotometer and others. *E*

Order, receive, inspect and inventory materials, chemicals and laboratory equipment; assure adequate quantities are available for instructional use. *E*

Prepare chemical solutions and unknowns for laboratory demonstrations, practical examinations and general instruction. *E*

LIFE SCIENCE

Prepare and set up laboratory equipment, reagents, biological media and other teaching aids for class demonstrations, practical examinations and student assignments. *E*

Employ various sterilization techniques for glassware, media, biohazard goods, equipment and apparatus. *E*

Use and operate a variety of technical equipment including autoclaves, pipetting machines, distilling apparatus, microscopes and others. *E*

Assure the care and feeding of live specimens including rodents, fish/aquariums, plants, algal, fungal and bacterial cultures. *E*

Oversee the maintenance and security of the cadaver room; prepare and maintain necessary legal paperwork. *E*

Order, receive and arrange for proper storage and handling of biological specimens, chemicals and laboratory equipment; inventory materials and assure adequate quantities are available for instructional use. *E*

Perform and/or oversee technical microbiological preparation with extensive work in media production (tubed, bottled, plated), vital stains, special reagents and aseptic transfers of pathogens and nonpathogens on a routine basis. *E*

Sort, organize, devise catalogs and check out systems for audio-visual materials and equipment. *E*

KNOWLEDGE AND ABILITIES:

KNOWLEDGE OF:

Principles, practices, procedures and equipment of physical or life sciences.

Health and safety regulations.

Record-keeping techniques.

Correct English usage, grammar, spelling, punctuation and vocabulary.

Technical aspects of field of specialty.

Oral and written communication skills.

Interpersonal skills using tact, patience and courtesy.

Science laboratory operation at the community college level.

ABILITY TO:

Learn to operate computer equipment.

Learn and apply techniques of precise measurement and notation.

Assure the care and security of assigned equipment, specialized materials and supplies.

Assemble, maintain and repair lab equipment.

Demonstrate competence in the physical or life sciences.

Issue and receive equipment and supplies.

Plan and organize work.

Train, select, evaluate and provide work direction to student workers.

Understand and follow oral and written instructions.

Work independently with little direction.

Communicate effectively both orally and in writing.

Establish and maintain cooperative and effective working relationships with others.

Meet schedules and time lines.

Maintain records and prepare reports.

EDUCATION AND EXPERIENCE:

PHYSICAL SCIENCE

Any combination equivalent to: completion of two years of college chemistry with some physics and two years of work experience as a laboratory technician in an instructional setting.

LIFE SCIENCE

Any combination equivalent to: completion of two years of college biological science and two years of work experience as a Science Technician in an instructional setting.

WORKING CONDITIONS:

ENVIRONMENT:

Instructional lab environment.

PHYSICAL ABILITIES:

Lifting heavy objects.

Bending at the waist to assist students.

Dexterity of hands and fingers to operate various equipment.

Hearing and speaking to exchange information.

Standing for extended periods of time.

Seeing to assist with lab projects.

HAZARDS:

Fumes from chemicals.

Exposure to potentially hazardous materials.