

**TITLE: SCIENCE LAB TECHNICIAN III RANGE 36**

**SUMMARY:**

Under the direction of an assigned supervisor, perform advanced instructional support functions to individual students or group of students in a classroom or laboratory environment in a specific instructional area to facilitate effective learning.

**Biology:**

Perform or direct other technicians in the maintenance of biology laboratories (sinks, lab tables, counters, models, equipment, and computers in the instructional labs and prep areas) and related areas (i.e., animal house, lath house, greenhouse, exhibit areas, and any other storage facilities) in clean, safe and sanitary conditions. Coordinate and participate in the preparation of complex and unique sets of experimental and instructional materials, for diverse courses in biology including cell and molecular biology, biotechnology, microbiology, anatomy and physiology including preparation of specimens, media, supplies and equipment utilized by instructors, tutors and students.

**Chemistry:**

Perform a variety of responsible and technical duties related to the organization, coordination and operation of chemistry laboratories and related area. Conceptualize and assemble complex and unique sets of experiment preparations involving vast arrays of chemicals and equipment. Prepare chemical solutions, reagents, unknowns and other laboratory materials, supplies and equipment utilized by chemistry instructors, tutors and students.

**Physical Science, Physics & Astronomy:**

Perform a variety of responsible, skilled, specialized and technical duties related to the organization, coordination and operation of physics, astronomy and physical science laboratories. Interpret circuit schematics and perform repairs on sophisticated electronic equipment such as oscilloscopes, oscillators, generators, power supplies, Geiger counters, multimeters, lasers and microwave equipment. Maintain and operate the college observatory, which includes a computerized telescope along with other telescopes, solar filters and a variety of eyepieces. Mix chemicals, produce and develop 3-D holograms using laser technology. Maintain departmental videocassettes and super 8 film loops; operate audio-visual equipment. Perform a variety of duties in the care of the college weather station including maintaining its mechanical instruments, reading rain gauges and wind speeds. Dry mount and heat press charts and diagrams. Experience working with lasers and microwave equipment, and experience in the repair of electronic equipment required.

**ESSENTIAL FUNCTIONS:**

* Performs required tasks to ensure these conditions, or assigns and follows up on completion of tasks to other department technical staff in order to achieve efficient and safe operation of department facilities.
* Coordinates general laboratory operations for a discipline.
* Coordinates use of laboratories and workloads of junior staff to ensure that classrooms are adequately prepared for scheduled classes.
* Defines supplies and materials needed to support existing and new curriculum.
* Consults with vendors regarding supplies, material and equipment needs.
* Orders supplies, materials and equipment to meet the needs of laboratory classes; receives supplies, materials and equipment and works with junior staff to coordinate proper storage.
* Devises systems and protocols for preparation, organization and delivery of scientific instructional materials and equipment for complex laboratory experiments and exercises.
* Assists faculty in the classroom to carry out complex exercises.
* Assists instructors and students (as requested by instructor) in the use of complex instructional equipment, materials and supplies typically found within a discipline.
* Conducts open lab sessions for students as necessary to meet discipline needs.
* Develops and implements protocols for training, calibration, adjustment and daily maintenance of standard and complex equipment found in scientific laboratories of a specific discipline.
* Trains other laboratory technicians on the use and daily maintenance of complex scientific and analytical equipment.
* Operate a wide variety of specialized equipment including telescopes, lasers, testing and measurement devices, chemical instruments, microscopes, audio-visual and other electronic, electrical and mechanical devices. Troubleshoots processes and makes recommendations or alters protocols to improve procedures.
* Performs simple equipment repairs or arranges for major repairs of complex equipment or instrumentation.
* Ensures procedures are in place and are followed for the safe handling, storage and disposal of hazardous materials. Develops and implements training protocols for faculty and staff regarding handling and storage of hazardous materials. Ensures that all hazardous materials are properly received, containered, labeled, stored and disposed.
* Ensures that all local, state and federal laws and standards are met.
* Designs and implements standard operating procedures to ensure recordkeeping requirements are met.
* Maintains inventories of supplies and equipment in order to achieve department needs.
* Works with Department Chair or lead discipline faculty to prepare discipline budget; determine costs for specific courses; develop complex budgets for research projects including new or unusual equipment or supplies.
* Prepares basic reports necessary to department operations.
* Works with faculty to develop and pilot new or updated curriculum using materials and equipment common to the discipline.
* Trains faculty on the use of complex analytical equipment to support classroom implementation
* Develops and implements training protocols for laboratory technicians, assistants and student workers as needed to ensure efficient department operations.
* Leads discipline/ department research projects in areas of expertise.
* Works with faculty and students to carry out projects.

**SECONDARY FUNCTIONS:**

* Communicates clearly with faculty, staff and administrators to ensure that department operations support the overall goals of the department and division.
* Ensures that all department assigned facilities laboratories, prepare areas and stockrooms are maintained in a clean, well-organized and safe condition.
* Participates on college-wide committees and hiring committees to meet needs of department/discipline.
* Participates in modification and improvement of instructional facilities.
* Works with faculty or other technical staff to develop & pilot curriculum utilizing complex analytical equipment.
* Works with junior staff members to ensure recordkeeping requirements are met.
* Perform related duties as assigned.

**KNOWLEDGE OF:**

* Detailed safety requirements and protocols for discipline in which employed and related disciplines.
* Complex methods for preparation of materials and supplies necessary for laboratory exercises and demonstrations;
* Correct English usage including grammar, spelling, punctuation and vocabulary.

**ABILITY TO:**

* Communicate effectively both orally and in writing with a wide variety of college and district personnel in order to solve problems and ensure smooth daily operations
* Operate a variety of equipment typically found in discipline where employed and closely related disciplines.
* Understand and follow oral and written directions; write reports and other discipline documents that can be followed by other department employees.
* Follow and apply safety regulations involving the care, storage and handling of materials used in the department or discipline.
* Establish and maintain cooperative and effective working relationships with others
* Provide information and assistance to faculty, other staff members, students (if requested by faculty members) and other members of the campus community.
* Perform complex calculations as necessary to prepare materials necessary for laboratory materials. Teaches junior staff to perform calculations necessary to complete laboratory tasks in a discipline.
* Operate a personal computer and use a variety of software packages consistent with the needs of the department. Operates specialized computer equipment and software specific to unique discipline or department needs.
* Works independently to effectively complete complex organizational task in order to meet department timelines and goals. Leads junior staff in meeting department goals and objectives. Seeks appropriate counsel with discipline faculty or administrators. Exceptional decision-making and judgement skills.
* Maintain currency in knowledge relevant to discipline in which employed.

**EDUCATION AND EXPERIENCE:**

Any combination equivalent to: two years college-level course work in related science discipline and three years of experience in a science laboratory. Increasingly responsible science lab experience required.

**WORKING CONDITIONS:**

Instructional lab or classroom environment, subject to fumes, chemical preservatives, noise, and heat. May be exposed to outdoor environment with various weather conditions and encounters, depending on area of assignment. May be subject to frequent standing and occasional lifting, bending and stooping depending on area of assignment. May be required to lift up to 40 pounds.

***\**** *Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are* ***not*** *intended to reflect all duties performed within the job.*

Est. 5/87 *(Biology, Chemistry, Physical Science, Physics & Astronomy – Senior Technicians)*

Rev. 3/17 *(Science Lab Technician III)*