



POSITION DESCRIPTION

Instructional Lab Technician II (Physics)

Position Instructional Lab Technician II (Physics)
Department/Site Natural and Physical Sciences
FLSA Non-Exempt
Evaluated by Dean of Natural and Physical Sciences
Salary Range 34

Summary

Performs technical duties to assist in the operation and maintenance of instructional laboratories. Prepares various experiments for laboratory activities. Assembles, sets up, and installs equipment used in laboratory demonstrations, experiments, or simulations. Provides technical and instructional assistance to faculty and students.

Essential Duties and Responsibilities

- Prepare and set up physics laboratory experiments as outlined in the course syllabi or faculty instructions, including setups for mechanics, electromagnetism, optics, thermodynamics, and modern physics.
- Provides assistance to students in the use of laboratory equipment and materials. Sets up, tests, and takes down experiments used in classes and laboratories. Provides technical assistance to students, troubleshooting and diagnosing problems with equipment.
- Calibrate, test, and troubleshoot laboratory equipment such as oscilloscopes, lasers, spectrometers, multimeters, and data acquisition systems to ensure functionality for student use.
- Cleans laboratory equipment and work areas. Handles and disposes of harmful or hazardous materials according to specific instructions relating to their disposal.
- Maintain a safe laboratory environment by adhering to safety protocols, handling hazardous materials (e.g., radioactive sources or high-voltage equipment) in accordance with established guidelines, and ensuring the proper disposal of waste.
- Sets up and provides technical and other assistance to students with special projects, field research trips, and classroom/laboratory presentations.
- Inventories and stores equipment, materials, and supplies for easy access, including lenses, circuits, sensors, laboratory supplies, and written materials to ensure availability for instructional purposes. Performs repairs on equipment and learning assistance devices. Checks out equipment, supplies, and materials used by students.
- Submits work orders for maintenance and repair of facilities and equipment.
- Order supplies and coordinate with vendors as needed.
- Maintains records of laboratory activity, including typing forms or inputting data or otherwise retaining information regarding the condition, maintenance and distribution of equipment, materials, supplies, and written materials. This includes documents to support the handling of hazardous or dangerous materials, substances, and chemicals.
- Processes documents connected with the purchase or acceptance of supplies and equipment used in laboratory environments.
- May guide the work of student helpers.
- May administer simulations, tests, and quizzes to students as provided by instructors in class or lab environment. May assist instructors by administering make-up tests.
- Maintains Material Safety Data Sheets (MSDS) and safely disposes chemical and biohazard waste. Prepares and maintains hazard labels on all chemicals used in laboratory preparations/protocols.



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- Performs other duties as assigned that support the overall objective of the position.

Qualifications

- Knowledge and Skills

- Requires knowledge of physics concepts, including mechanics, electromagnetism, optics, thermodynamics, and modern physics. Familiarity with laboratory equipment, including oscilloscopes, lasers, and data acquisition systems.
- Requires basic knowledge of the software used in physics labs for data acquisition and analysis.
- Requires working knowledge of the use of scientific and laboratory equipment.
- Requires working knowledge of laboratory or workshop procedures, organization, equipment, tests, experiments, and simulations.
- Requires knowledge of safe and proper handling of harmful chemicals, substances, and hazardous wastes.
- Requires knowledge of basic inventory methods.
- Requires sufficient mathematics skill to make calculations such as metric weights and volumes, and percentages.
- Requires sufficient knowledge of computers to use common desktop and specialized applications used in supporting education.
- Requires sufficient knowledge of the English language to prepare routine correspondence and instructions.
- Requires knowledge of tutoring techniques including students' styles of learning.
- Requires sufficient human relation skills to guide students and student workers, and to convey technical concepts.
- Requires sensitivity to the needs of students with diverse backgrounds and abilities.

- Abilities

- Requires the ability to carry out the responsibilities of the position including setting up laboratory assignments, experiments, simulations, tests, and student projects.
- Requires the ability to prepare instructional equipment for laboratory experiments.
- Requires the ability to operate, calibrate, and perform minor repairs to laboratory equipment and tools.
- Requires the ability to read and understand technical manuals.
- Must be able to maintain the lab and equipment in a safe and organized manner, including the handling of hazardous or dangerous materials and equipment as required for some labs.
- Requires the ability to instruct students in the use of equipment.
- Requires the ability to perform routine record keeping and report writing duties.
- Must be able to organize and prioritize work to meet deadlines and manage time effectively.
- Must be able to guide the activities of student workers.
- Requires the ability to complete required occupational safety and health training within a reasonable time.
- Requires the ability to work varying schedules including evenings.



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Physical Abilities

- Incumbent must be able to function effectively indoors and outdoors in a classroom/laboratory environment engaged in work of a moderately active nature.
- Requires sufficient ambulatory ability to stand for extended periods of time, lift and move medium weight materials up to 50 pounds, and move to work stations.
- Requires sufficient arm, hand, finger dexterity to setup experiments and use a computer keyboard and other office equipment.
- Requires normal hearing and speaking skills to communicate with staff and students in one-on-one and small group settings.
- Requires visual acuity to read printed materials and labels and to observe students perform tests and assignments.

Education and Experience

- An associate degree in physics or related science discipline, or the completion of at least sixty (60) college-level semester units with an emphasis in physics or related science discipline, and one year of science laboratory-related experience; or, in the absence of an associate degree, or the completion of at least sixty (60) college-level semester units, three years of science laboratory-related experience.

Working Conditions

- Work is performed indoors and outdoors where significant safety considerations exist from physical labor, handling of medium weight, yet, awkward materials, and chemicals.