

LABORATORY TECHNICIAN – AERONAUTICS

DEFINITION

Under general supervision, provides instructional support services for faculty and students of the Aeronautic Program; prepares and sets up laboratory exercises, demonstrations, and instructional materials, equipment, and supplies; assists students and faculty in the use and operation of equipment and materials related to aeronautics; tracks use of aviation equipment and maintains logs and records of that equipment and time-limited parts.

SUPERVISION RECEIVED AND EXERCISED

Receives general supervision from the Dean, Technology and Health. Exercises no direct supervision of staff. Provides technical and functional direction and training to student workers.

CLASS CHARACTERISTICS

This is a journey-level classification responsible classification for conducting a variety of instructional support activities to ensure student learning. Incumbents perform the full range of duties as assigned, working independently, and exercising judgment and initiative. Incumbents at this level receive only occasionally instruction or assistance as new or unusual situations arise and are fully aware of the operating procedures and policies of assigned area of responsibility. This classification is distinguished from other laboratory technicians by having subject matter expertise in aeronautics.

EXAMPLES OF ESSENTIAL FUNCTIONS (Illustrative Only)

- Prepares and sets up laboratory exercises, demonstrations, and instructional materials; monitors laboratory environment; organizes, arranges, stocks, and distributes materials, equipment, and supplies.
- Troubleshoots, repairs, maintains, and analyzes data from aeronautics equipment and simulators; ensures that all equipment and machines are in safe and operational condition.
- Maintains, tests, and manages rechargeable battery technologies and other battery equipment.
- Tracks the usage of aeronautics equipment and maintains a database of usage of equipment and time-limited parts.
- Provides instructional support services for the Aeronautics Program; assists in instructional demonstrations of unmanned aircraft; explains related principles, practices, procedures, methods, materials, terminology, simulators, drones, and equipment.
- Cleans and ensures proper storage of laboratory equipment; ensures laboratory and work areas are in clean and orderly condition.

- Ensures proper use of laboratory equipment by monitoring activities according to established rules and policies.
- Works with faculty to ensure class timeline and agendas are met.
- Maintains accurate logs, reports, and records of work performed and materials and equipment used.
- Monitors, orders, receives, stores, and maintains adequate inventory levels of supplies and equipment as directed.
- Learns and applies emerging technologies, as necessary, to perform duties in an efficient, organized, and timely manner.
- Performs other related duties as assigned.

QUALIFICATIONS

Knowledge of:

- Terminology, techniques, equipment, materials, principles, theories, practices, and procedures related to the Aeronautics Program.
- General methods and procedures for preparing course materials and laboratory exercises and demonstrations used in aeronautic courses.
- Set-up, operation, demonstration, and maintenance of various tools and equipment used in aeronautics.
- Use of hand-held tools and electronic testing equipment.
- Retrieving, decoding, and interpreting data from electronic devices and sensors.
- Principles and techniques to troubleshoot and determine appropriate action in the maintenance and repair of equipment, simulators, and drones.
- Methods, practices, and techniques of student learning and instruction.
- Modern office practices, methods, and computer equipment and applications related to the work.
- Record keeping principles and procedures.
- English usage, spelling, vocabulary, grammar, and punctuation.
- Techniques for providing a high level of customer service by effectively dealing with the public, students, and District staff, including individuals of various ages, disabilities, various socio-economic and ethnic groups.

Skills & Abilities to:

- Explain and apply principles, practices, procedures, methods, materials, tools, terminology, and equipment related to the aeronautic program.
- Assist students and faculty in the use and operation of aeronautic equipment and materials.
- Create an engaging and positive learning in a laboratory or other learning environments.
- Demonstrate proper use and maintenance of equipment, materials, and supplies used in aeronautics.
- Demonstrate proper use and data interpretation of electronic test equipment.
- Read, interpret, and apply a wide variety of technical information from manuals, specifications, blueprints, and schematics.

- Interpret, apply, and explain applicable District policies, rules, and regulations related to areas of responsibility.
- Maintain tools and equipment in a clean working condition providing for proper security.
- Estimate and order required supplies and equipment.
- Establish and maintain a filing, record keeping, and tracking systems.
- Organize own work, set priorities, and meet critical time deadlines.
- Operate modern office equipment including computer equipment and software applications programs.
- Use English effectively to communicate in person, over the telephone, and in writing.
- Understand scope of authority in making independent decisions.
- Review situations accurately and determine appropriate course of action using judgment according to established policies and procedures.
- Establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.

Education and Experience:

Any combination of training and experience that would provide the required knowledge, skills, and abilities is qualifying. A typical way to obtain the required qualifications would be:

Equivalent to an Associate's degree from a regionally accredited college in aeronautics, electronics, manufacturing, or a related field, and experience related to the position.

Preferred:

Two (2) years of experience working in an aeronautics classroom, laboratory, or similar setting.

Licenses and Certifications:

- None.

PHYSICAL DEMANDS

Must possess mobility to work in a laboratory/classroom environment and in the field; strength, stamina, and mobility to perform medium to heavy physical work, to operate varied aeronautic tools, equipment, and machinery; vision to read printed materials and a computer screen; and hearing and speech to communicate in person and over the telephone. The job involves fieldwork requiring frequent walking and standing in operational areas to perform work and to identify problems or hazards. Finger dexterity is needed to access, enter, and retrieve data using a computer keyboard or calculator and to operate above-mentioned equipment. Incumbents in this classification bend, stoop, kneel, reach, and climb to perform work. Incumbents must possess the ability to lift, carry, push, and pull materials and objects, typically weighing up to 50 pounds, and occasionally heavier weights with the use of proper equipment.

ENVIRONMENTAL ELEMENTS

Incumbents work in a laboratory/classroom and in the field and are exposed to loud noise levels, cold and hot temperatures, inclement weather conditions, dust, fumes, and allergens, hazardous physical substances, mechanical and electrical hazards, and moving equipment and machinery. Incumbents may interact with staff and/or students in interpreting and enforcing departmental policies and procedures.