DEFINITION

Under the direction of an instructor or assigned supervisor or manager, assist and support the instructional program; perform complex technical work in machine technology instructional laboratories; perform technical computer work in support of the instructional program; and prepare instructional materials as assigned.

DISTINGUISHING CHARACTERISTICS

The Instructional Lab Technician class is distinguished from the Instructional Assistant class in that positions assigned to the class of Instructional Lab Technician oversee a complex instructional laboratory for an academic or vocational area and must possess extensive technical or academic training and experience in the field of specialty. Under the direction of an administrator or specified faculty member, incumbents work independently and provide work direction and training to Instructional Assistants and/or student assistants.

EXAMPLE OF DUTIES

1. Oversee the operation and maintenance of an aviation instructional laboratory environment; setup, test, operate, repair, and maintain equipment and machinery.

2. Prepare materials for demonstrations by instructors or for use by students. Control the circulation of instructional supplies, materials, tools, and equipment to students and instructors by checking items in and out, maintaining records and inventories, and ordering replacement items as necessary according to approved procedures. Ensure proper storage and handling of equipment, tools, and materials. Trouble-shoot faulty operation of equipment.

3. Perform periodic inspection and maintenance of laboratory equipment. Make minor repairs on equipment as necessary. Schedule repairs of all lab equipment according to approved procedures.

4. Maintain and ensure instructional areas, laboratory, storeroom, and technical areas are in a safe, secure, clean, and orderly condition. Ensure that students observe appropriate safety procedures. Perform security and safety inspections and provide appropriate safety training when necessary.

5. Represent the Aviation Department at various air shows and high school career and education fairs; discuss opportunities with potential Aviation Department students.

6. Assist faculty, students, and staff in the proper use and operation of equipment, machinery, instructional aids, and technology common to aviation. Assist students in the proper selection, operation, and care of instructional materials and equipment.

7. Explain concepts, principles, and terminologies and provide information to students, staff, instructors, and others. Assist students in the completion of assignments; tutor students individually or in small groups; reinforce or follow up on instructions provided by the instructor; provide relevant information to instructors regarding student progress.

8. Order, receive, catalog, and store supplies, tools, equipment, materials, and related components; maintain appropriate records and local inventory control for equipment and materials. Provide technical assistance in the preparation of specifications for equipment and material purchases; recommend selection of equipment as requested.
9. Provide training and work direction to Instructional Assistants, student aides, and hourly assistants.

10. Maintain records and prepare reports. Ensure accurate reporting to regulatory agencies.

11. Monitor laboratory budget expenditures. Assist in the preparation of the laboratory budget. Prepare requisition forms for non-stock equipment and supplies or other items purchased. Pick up supplies and equipment from vendors when necessary.

12. Perform other related duties as assigned by supervisor.

**DESIRABLE QUALIFICATIONS**

**Knowledge:**
- Aircraft flight systems and controls.
- Aircraft maintenance and operations.
- Aircraft maintenance procedures and technologies.
- Basic instrument flight rules, procedures, regulations, and techniques.
- Computer software and hardware.
- Crew resource management and human factors in aviation.
- Design, inspection, servicing, testing, and repair of aircraft.
- District organization, operations, policies, and objectives.
- English usage, grammar, spelling, punctuation, and vocabulary.
- General needs and behavior of students of various ethnic, racial, and cultural backgrounds.
- Instructional methods and techniques.
- Operation, maintenance, uses, and characteristics of a wide variety of equipment used in an instructional laboratory setting for aviation.
- Oral and written communication skills.
- Principles and practices of work direction and training.
- Private pilot ground training.
- Record-keeping techniques.
- Safety regulations for aviation equipment and supplies.
- Technical aspects and maintenance of machine tools and tool crib.
- Technical aspects of aviation, including use of specialized tools, FAA regulations and limitations, and FAR airworthiness directives.

**Skills and Abilities:**
- Advise students in proper operation and use of equipment and tools.
- Assemble, maintain, and repair laboratory equipment.
- Assist students in understanding and applying principles of aviation.
- Communicate effectively both orally and in writing.
- Demonstrate competency in the field of aircraft technology, maintenance, and operations.
- Ensure the care and security of assigned equipment, materials, and supplies.
- Establish and maintain effective working relationships with others.
- Explain work assignments to students.
- Follow set standards and procedures and make decisions based on facts and test results.
- Issue and receive equipment and supplies.
- Lift and carry up to 50 pounds.
- Maintain records and prepare reports.
- Make simple arithmetic calculations.
- Make visual inspections to check for safety.
- Meet schedules and deadlines.
- Operate computers and applicable software.
- Perform maintenance and repair of equipment.
Plan and organize work.
Provide orientation to students and staff in the operation of tools and equipment.
Relate effectively with people from varied cultural and socio-economic background.
Train and provide work direction to others.
Understand and follow complex written and oral directions.
Work cooperatively with others.
Work independently with minimal direction.

Training and Experience:
Any combination of training and experience equivalent to: satisfactory completion of 15 semester units of courses related to aviation maintenance and at least two years of successful work experience in the field of aviation maintenance. Experience in an instructional setting is desirable.

Licenses:
FAA Airframe and Powerplant Mechanics Certificate.
FAA Private Pilot License or CFI desired.

WORKING CONDITIONS

Physical Requirements:
Category II; should be able to lift up to 50 lbs.

Environment:
Involves an instructional lab in an aviation technology and maintenance setting; handles hazardous materials and machinery and is exposed to extreme temperatures, dust, fumes, and loud noise on a regular basis.