### **LABORATORY TECHNICIAN - AERONAUTICS**

*Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are <u>not</u> intended to reflect all duties performed within the job; however, any additional duties will be reasonably related to this class.* 

# SUMMARY DESCRIPTION

Under general supervision, instructional support to certificated faculty in the instruction of students enrolled in the Airframe and Powerplant Program; orders, issues, prepares, and maintains laboratory materials, supplies, and associated equipment; performs related duties as required.

Positions in the Laboratory Technician class are assigned duties requiring considerable technical knowledge and ability in the assigned field of specialization. Incumbents are expected to exercise independent judgment in the performance of duties and are responsible for supervising and maintaining all laboratory supplies, materials, equipment, and records. Positions in this class specialize in the assigned subject area.

### **REPRESENTATIVE DUTIES**

*The following duties are typical for this classification.* 

- 1. Sets up and prepares class demonstrations and experiments working from knowledge of the subject area, reference materials, course outline, and without specific instructions.
- 2. Conducts inventories, orders, receives, and stocks materials, supplies, and equipment for laboratory use.
- 3. Issues and maintains records on materials loaned to students, instructors, and other departments; issues and maintains records on lockers.
- 4. Assists in the instruction and supervision of all phases of airframe and powerplant technology training in accordance with federal aviation regulations, including the usage of equipment and materials, and shop safety practices.
- 5. Ensures that students perform laboratory work in accordance with safe work practices; demonstrates the safe and effective operation, and use of laboratory tools and equipment.
- 6. Supervises students in the cleanup of lab work areas; participates in the daily cleanup of the shop, and the maintenance and repair of laboratory equipment.
- 7. Provides special assistance to students experiencing difficulties in completion of laboratory assignments.
- 8. Explains tool room procedures, and responds to students' questions regarding the nomenclature, use, and availability of tools, materials, and supplies; assists in the inventory and storage of materials and supplies.
- 9. Demonstrates and provides assistance in the use of publication files, including the use of microfilm viewers.
- 10. May calibrate, maintain, and perform repairs on scientific equipment and supplies.
- 11. May assist faculty in assembling printed class materials.

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- 12. May supervise and assign work of student assistants.
- 13. May maintain expenditure records and provide data for budget estimates.
- 14. Performs related duties as required.

### **QUALIFICATIONS**

The following generally describes the knowledge and ability required to enter the job and/or be learned within a short period of time in order to successfully perform the assigned duties.

# Knowledge of:

Methods and procedures of preparing instructional materials used in appropriate laboratory.

- Sufficient human relation skills to guide students and student workers, and to convey technical concepts.
- Operational characteristics of laboratory apparatus, equipment, and materials pertaining to assigned laboratory and subject area.
- Safety factors necessary in operating and working with laboratory equipment, apparatus, and materials.

Modern aircraft maintenance techniques.

Equipment and materials used in aircraft maintenance.

Methods and techniques of aircraft inspection.

Federal Aviation Regulation included in Part 147.

Principles and procedures of record keeping and filing.

Basic inventory and purchasing processes and procedures.

English usage, spelling, grammar, and punctuation.

# Ability to:

Set up, modify, service, adjust, and make minor repairs to laboratory apparatus and equipment. Prepare instructional equipment for laboratory exercises.

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.

Read and understand technical manuals and protocols.

Instruct students in the use of laboratory tools and equipment.

Demonstrate the use of publication files, including microfiche viewers.

Select and use appropriate materials in the performance of various aircraft maintenance tasks.

Listen actively and effectively, identify and solve problems, and facilitate problem solving.

Operate office equipment including computers and supporting word processing-

Perform routine record keeping and report writing duties.

Work independently and collaboratively.

Plan and organize work to meet changing priorities and deadlines.

Communicate clearly and concisely, both orally and in writing.

Establish and maintain effective working relationships with those contacted in the course of work.

# Education and Experience Guidelines A typical way to obtain the knowledge and abilities would be:

# **Education/Training:**

Equivalent to the completion of the twelfth grade supplemented by formal aircraft maintenance training necessary to obtain an Airframe and Powerplant Mechanics Certificate issued by the Federal Aviation Administration.

# **Experience**:

Some experience in the preventive maintenance and repair of aircraft and aircraft engines.

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# License or Certificate:

Possession of an Airframe and Powerplant Mechanics Certificate issued by the Federal Aviation Administration.

### PHYSICAL DEMANDS AND WORKING ENVIRONMENT

The conditions herein are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential job functions.

**Environment:** Work is performed primarily in a laboratory setting; exposure to dusts, fumes, noise; work with laboratory and mechanical equipment and apparatus.

**Physical:** Primary functions require sufficient physical ability and mobility to work in a laboratory setting; to stand or sit for prolonged periods of time; to occasionally stoop, bend, kneel, crouch, reach, and twist; to lift, carry, push, and/or pull light to heavy amounts of weight; to operate laboratory, mechanical and aeronautics shop equipment requiring repetitive hand movement and fine coordination including use of a computer keyboard; and to verbally communicate to exchange information; requires the wearing of personal protective equipment including safety glasses or goggles, lab coats, rubber or plastic gloves, respirators, or face shields.

**Vision:** See in the normal visual range with or without correction; vision sufficient to read computer screens and printed documents; and to operate assigned equipment.

Hearing: Hear in the normal audio range with or without correction.

Board Approved: Johnson & Associates Revised: January 2007 Revised: November 17, 2011