Equipment Technician Series

EQUIPMENT TECHNICIAN II

Class Title	Class Code	Date Estab.	Occup. Index Ref.
Equipment Technician II, Mechanical	7011	7-1-80	P-1
Supervising Equipment Technician II, Mechanical	7041	7-1-80	P-1
Equipment Technician II, Electro-Mechanical	7012	7-1-80	P-1
Supervising Equipment Technician II, Electro-Mechanical	7042	7-1-80	P-1
Equipment Technician II, Electronic	7013	7-1-80	P-1
Supervising Equipment Technician II, Electronic	7043	7-1-80	P-1
Equipment Technician II, Specialized Equipment	7014	7-1-80	P-1
Supervising Equipment Technician II, Specialized Equipment	7044	7-1-80	P-1

DEFINITION:

Under general supervision an Equipment Technician II, designated by major equipment specialty, performs skilled repair, maintenance and design or modification of equipment at this level. Emphasis is upon the design, fabrication, and construction of unique equipment, teaching aids and technical apparatus for use in the laboratory or classroom. related to instructional support. Assignments may include other duties related to instructional support.

Incumbents of positions at this level who plan and organize the work of others and who are directly responsible for assignment of work, training, performance, and evaluation shall be designated as Supervising Equipment Technician II in a designated specialty area. Some positions of Supervising Equipment Technician II may involve supervision of Equipment Technicians or positions in the Instructional Support Series.

Specialties relate to the type of equipment being maintained: Mechanical, Electro-Mechanical, Electronic, and Specialized Equipment.

DISTINGUISHING CHARACTERISTICS:

Incumbents of positions in this class perform skilled repair and maintenance of common and specialized equipment including major overhaul and design, fabrication and construction of complex or prototype equipment in contrast to the next lower level which uses standard methods and techniques for common equipment. Incumbents provide information about availability of components and provide technical detailing for design plans and specifications; frequently have ongoing responsibility to keep assigned equipment operable; order or maintain parts and supplies; may provide equipment support for a discipline or similar unit with consistency in kinds of equipment. Troubleshooting involves developing analytical processes or knowing ***why*** equipment works, as well as ***how*** it works.

Incumbents of positions in this series perform equipment repair, maintenance, installation, design or fabrication 50% or more of the time. Some assignments perform additional services related to materials, supplies, and other support functions.

Incumbents of positions performing equipment repair, maintenance, installation, design of fabrication less than 50% of the time and in combination with other support functions should be allocated to the Instructional Support Series.

Examples of Typical Activities:

For the Equipment Technician II and Supervising Equipment Technician II, all specialties
Incumbents use testing meters, analytical equipment, and devices, and perform other support services including issue, storage, requisition and maintenance of inventories of equipment and supplies; give technical advice relative to test equipment operations, to the selection and purchase of new equipment and to the selection of vendors; maintain and update catalogs and files; order and index publications and handbooks; and assist in budget administration and purchasing.

Specialties:

Mechanical Equipment Specialty
Incumbents of positions in the Mechanical Equipment Specialty work a majority of the time in the design, fabrication, construction, assembly, repair and maintenance of mechanical devices and equipment. The emphasis of such positions is upon the design, fabrication and construction of mechanical devices and equipment. Repair usually involves major overhaul and the machining of parts when necessary.

Incumbents analyze complex equipment problems and determine repairs needed; repair and maintain equipment used in mechanical laboratories such as gasoline and diesel engines, reciprocating engines, gasoline and steam turbines, cooling towers and boilers, heat exchangers, fluid pumps, strain indicators, tensile testing machines, and various equipment used in laboratory testing; design. fabricate and assemble various complicated research and instructional instruments and equipment. The basis for such equipment design may consist of only verbal instructions or rough sketches. Incumbents complete the required design drawing to serve as construction drawings.

Equipment Specialty
Incumbents repair, maintain, design, fabricate, or construct all types of electric and electromechanical equipment including the following: relay rack panels; capacitors; power supplies; generators; motors; transformers; circuit breakers; transperometers; ""traveling" microscopes; devices, aids and models for measuring the rates of impulses, and for illustrating the scientific theories; control panels and racks; consoles, terminals, computers, public address systems, amplifying equipment, equipment bays; electronic test equipment;speaker enclosures; cameras, recorders, audiovisual equipment; equipment for mixing, heating, cooling, separating; controlling, measuring; gauging, starting; stopping; etc.

Electronic Equipment Specialty
Incumbents in this specialty fabricate, assemble, and install electric components following prints, diagrams, rough sketches or verbal instruction; debug and troubleshoot total electronic systems using test equipment and schematic diagrams, devise methods for assembly and assemble electronic components with other electric devices by providing wiring and mountings which insure that possible sources of electrical interference are physically isolated, that lengths of leads are kept at a minimum to reduce the possibility of a regenerative feedback, and that circuit components are securely mounted to avoid malfunctioning under anticipated conditions of temperature, shock and vibration; give advice on relative advantages of types and brands of equipment, their performance characteristics and costs; develop plans and schematic diagrams; develop diagrams for planning complete systems; assist in planning modifications to existing systems and draw new or revised diagrams; calibrate, test, adjust, and repair complex or unique equipment for which special training is given to the incumbent; assist students in developing research equipment by designing and

fabricating electronic controls and devices; demonstrate the proper operation of special instruments to students; develop detailing of systems after basic designs have been proposed by an engineer or supervisor; certify the accuracy and proper functioning of equipment or instruments when the use of these pieces of equipment could have an impact on the health and safety of students or employees.

Specialized Equipment Specialty
Incumbents of positions in this specialty perform major overhaul and design, fabrication, and construction of prototype, unusual or extremely complex equipment or instruments. Equipment repair methods and techniques needed at this level require more advanced training or greater experience than for Technician I level where repair follows standard practices even though equipment is complex. Work at this level with specialized equipment must involve overhaul of diverse kinds of equipment within the specialty requiring breadth of skills because of the diversity or must involve design work applying knowledge of a variety of equipment types and their performance and maintenance characteristics.

MINIMUM QUALIFICATIONS:

Knowledges and Abilities:

For Equipment Technician II and Supervising Equipment Technician II, all specialties
Thorough knowledge of methods, materials, tools and equipment used in construction, installation, maintenance, repair and operation of equipment in the area of specialization; knowledge of the repair and maintenance of tools and shop equipment, working knowledge of design and drafting procedures.

Ability to perform complex troubleshooting; ability to design, fabricate, modify, and repair technical equipment of the specialty assignment following original or suggested plans; ability to analyze equipment problems and determine what repairs are needed; ability to install, place, and maintain a wide variety of equipment related to the area of job assignment ability to read and write at a level appropriate to the duties of the position, ability to make arithmetic computations where required.

For Supervising Equipment Technician II, all specialties
The ability to train and supervise others.

and

Experience:

For Equipment Technician II and Supervising Equipment Technician II. all specialties.
Equivalent to two years of journey-level or skilled experience in the maintenance, repair, and operation of scientific or technical equipment in the specialty area to which assigned such as mechanical, electromechanical, electronics or in the specialized category including construction and fabrication and some precision work or requiring trade or craft skills working with a variety of unique materials.

Equivalent to two years of semi-skilled experience maintaining and repairing scientific or technical equipment or related experience in the type of equipment to which assigned as part of instructional support activities may be substituted for one year of the required experience.

Equivalent to two years of trade school or technical arts training with specialization in the type of equipment repair to which assigned, completion of an apprenticeship program, or completion of a full military specialization in the required type of equipment maintenance and repair for one year of the required experience.

and

Special Qualifications:
A Federal Communications Commission license is required for some positions.

Work Week Group: 1
Premium O/T: Yes
Shift Differential: Yes
Employee Category: Non-Academic