

MASSACHUSETTS DEPARTMENT OF PERSONNEL ADMINISTRATION

CLASSIFICATION SPECIFICATION

APPROVED

DEC 31 1987

**Department of Personnel
Administration**

I. TECHNICAL SPECIALIST, UNIVERSITY OF MASSACHUSETTS SERIES:

Technical Specialist I, University of Massachusetts
Technical Specialist II, University of Massachusetts

II. SUMMARY OF SERIES:

Incumbents of positions in this series assemble, test and reassemble various types of equipment, instruments and apparatus such as mechanical, electrical, electronic and electromechanical; install and operate various types of equipment; inspect, maintain, repair and adjust various equipment, instruments and apparatus; provide technical assistance in the operation of equipment, instruments and apparatus; and perform related work as required.

The basic purpose of this work is to assemble, install, maintain, repair, test, inspect and/or modify various mechanical, electric, electronic and electromechanical equipment, instruments and apparatus used for educational, scientific, research and related purposes at the University of Massachusetts.

III. ORGANIZATIONAL LEVELS:

Technical Specialist I, University of Massachusetts is the entry-level technical job in this series.

Technical Specialist II, University of Massachusetts is the first-level supervisory job in this series.

IV. EXAMPLES OF DUTIES COMMON TO ALL LEVELS IN SERIES:

1. Assembles and/or reassembles various equipment and apparatus using small hand tools, portable power tools and electrical and electronic testing equipment and devices and pressure gauges according to specifications, schematics, blueprints, technical manuals and/or diagrams.
2. Tests various types of equipment using electrical and electronic testing equipment and devices and small hand tools to determine causes of failure or malfunction.
3. Disassembles equipment to locate and determine malfunctions, to replace defective parts and/or to make necessary repairs or adjustments according to specifications, schematics, blueprints, technical manuals and/or diagrams.

4. Installs and operates various types of equipment such as mechanical, electrical, electronic and electromechanical, using small hand tools, portable power tools and various testing equipment and devices in accordance with established specifications, schematics, blueprints, technical manuals and/or diagrams.
5. Inspects various mechanical, electrical, electronic and electromechanical equipment, instruments and apparatus using small hand tools, portable power tools and various testing equipment to ensure their functional operation according to specifications, schematics, blueprints, technical manuals and/or diagrams and to determine the availability of equipment to meet assigned unit requirements.
6. Modifies, alters and adjusts equipment and its components to adapt such devices to meet assigned unit requirements.
7. Provides technical assistance and instruction to others concerning the operation of technical equipment, instruments and apparatus such as spectrophotometers, centrifuges, spectrometers, oscilloscopes, pH meters, generators, etc.
8. Performs preventive maintenance and repairs on various equipment, instruments and apparatus using small hand tools and portable power tools to ensure proper and safe operation.
9. Performs related duties such as maintaining records, logs and schedules of equipment installation, maintenance and repairs.

Based on assignment, incumbents of positions at this level or higher may also:

1. Maintain, inspect, repair, test and/or adjust various mechanical, electrical, electronic and electromechanical equipment such as communications systems, alarm systems and other systems of the university facility.

V. DIFFERENCES BETWEEN LEVELS IN SERIES:

Technical Specialist II, University of Massachusetts:

Incumbents of positions at this level also:

1. Supervise and coordinate activities relative to ensuring the availability and proper operation of equipment, instruments and apparatus needed for university activities and/or operations.
2. Inspect completed work of subordinates and other technical personnel to ensure compliance with established standards.
3. Make recommendations to supervisors and managers concerning the acquisition and installation of equipment and devices.
4. Confer with professional staff and others concerning assigned activities to exchange information, resolve problems and coordinate efforts.

5. Provide on-the-job training to technical staff.

VI. RELATIONSHIPS WITH OTHERS:

Major work contacts are with university staff, faculty and students.

VII. SUPERVISION RECEIVED:

Technical Specialist I, University of Massachusetts:

Incumbents of positions at this level receive direct supervision from Technical Specialists or other employees of higher grade who provide instructions and technical guidance, assign work and review performance through inspections and reports for compliance with established standards.

Technical Specialist II, University of Massachusetts:

Incumbents of positions at this level receive general supervision from employees of higher grade who provide technical and policy guidance, assign work and review performance through reports and conferences for compliance with established standards.

VIII. SUPERVISION EXERCISED:

Technical Specialist I, University of Massachusetts:

Incumbents of positions at this level may exercise functional supervision (i.e., over certain but not all work activities, or over some or all work activities on a temporary basis) over 1-5 technical personnel.

Technical Specialist II, University of Massachusetts:

Incumbents of positions at this level exercise direct supervision (i.e., not through an intermediate level supervisor) over, assign work to and review the performance of 1-5 technical personnel.

IX. WORKING CONDITIONS:

Technical Specialists, University of Massachusetts work under exposure to the hazardous and harmful effects of equipment such as mechanical, electrical, etc.

X. QUALIFICATIONS REQUIRED AT HIRE AT ALL LEVELS IN SERIES:

1. Knowledge of the types and uses of equipment and materials used in mechanical and electrical practice.
2. Knowledge of the types and uses of testing equipment used in mechanical and electrical work.
3. Knowledge of the types and uses of equipment and materials used in electronics work.
4. Knowledge of the types and uses of testing equipment used in electronics work.

5. Knowledge of safety practices and procedures followed in electrical and mechanical work.
6. Knowledge of safety practices and procedures followed in electronics work.
7. Knowledge of the types and uses of precision measuring equipment, gauges and instrumentation such as micrometers, calipers, levels, etc.
8. Knowledge of the types and uses of small hand tools such as hammers, screwdrivers, etc.
9. Knowledge of the types and uses of hand held power tools such as saws, drills, hammers, etc.
10. Knowledge of the methods and techniques for conducting electrical and electronic tests on equipment.
11. Skill in the use of electrical testing equipment.
12. Skill in the use of electronics testing equipment.
13. Skill in the use of precision measuring equipment, gauges and instrumentation.
14. Skill in the use of small hand tools such as hammers, screwdrivers, etc.
15. Skill in the use of hand held power tools such as saws, drills, hammers, etc.
16. Ability to read and interpret documents such as plans, specifications, blueprints, manuals, etc.
17. Ability to understand and apply the policies, rules, regulations, procedures, specifications, standards and guidelines governing assigned unit activities.
18. Ability to follow oral and written instructions.
19. Ability to establish and maintain harmonious working relationships with others.
20. Ability to give oral and written instructions in a precise, understandable manner.
21. Ability to maintain accurate records.
22. Manual dexterity.
23. Mechanical aptitude.

Additional qualifications required at hire for Technical Specialist II,
University of Massachusetts positions:

1. Ability to supervise, including planning and assigning work according to the nature of the job to be accomplished, the capabilities of subordinates and available resources; controlling work through periodic reviews and/or evaluations; determining subordinates' training needs and providing or arranging for such training; motivating subordinates to work effectively; determining the need for disciplinary action and either recommending or initiating disciplinary action.

XI. QUALIFICATIONS ACQUIRED ON THE JOB AT ALL LEVELS IN SERIES:

1. Knowledge of the rules, regulations, policies, procedures, specifications, standards and guidelines governing assigned unit activities.

Additional qualifications acquired on the job in Technical Specialist II,
University of Massachusetts positions:

1. Knowledge of the principles, practices and techniques of supervision.

XII. MINIMUM ENTRANCE REQUIREMENTS:

Technical Specialist I, University of Massachusetts:

Applicants must have (A) at least two years of full-time or equivalent part-time, technical experience in the installation, construction, design, repair, maintenance or testing of electronic, electrical, mechanical and/or electromechanical equipment, or (B) any equivalent combination of the required experience and the substitutions below.

Substitutions:

- I. A diploma or certificate from a recognized trade, technical or vocational school, at high school level or higher, with a major in electronics, or mechanical or electrical practices may be substituted for the required experience.*

*Education toward such a diploma or certificate will be prorated on the basis of the proportion of the requirements actually completed.

Technical Specialist II, University of Massachusetts:

Applicants must have (A) at least three years of full-time, or equivalent part-time, technical experience in the installation, construction, design, repair, maintenance or testing of electronic, electrical, mechanical and/or electromechanical equipment; or (B) any equivalent combination of the required experience and the substitutions below.

Substitutions:

- I. A diploma or certificate from a recognized trade technical or vocational school, at high school level or higher, with a major in electronics, or mechanical or electrical practices may be substituted for a maximum of two years of the required experience.*

*Education toward such a diploma or certificate will be prorated on the basis of the proportion of the requirements actually completed.

XIII. SPECIAL REQUIREMENTS:

None.

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Occupational Group 40

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