

APPROVED

MASSACHUSETTS DEPARTMENT OF PERSONNEL ADMINISTRATION

DEC 31 1987

CLASSIFICATION SPECIFICATION

Department of Personnel
Administration

APPROVED

I. TECHNICAL ASSISTANT, HIGHER EDUCATION SERIES:

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Technical Assistant I, Higher Education
Technical Assistant II, Higher Education
Technical Assistant III, Higher Education

Department of Personnel
Administration

II. SUMMARY OF SERIES:

Incumbents of positions in this series install and operate laboratory equipment; prepare materials for experiments and instruction; demonstrate proper care and operation of laboratory equipment; collect data and perform data analysis; clean and maintain laboratory areas and equipment; maintain inventory of supplies and equipment; order laboratory materials; and perform related work as required.

The basic purpose of this work is to provide technical support for instructional, research, experimental and other related activities at state institutions of higher education.

III. ORGANIZATIONAL LEVELS:

Technical Assistant I, Higher Education is the entry-level technical job in this series.

Technical Assistant II, Higher Education is the first-level supervisory job in this series.

Technical Assistant III, Higher Education is the second-level supervisory job in this series.

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

1. Assembles, installs and operates equipment, instrumentation and other apparatus in classrooms or laboratories to support research and instructional activities.
2. Adjusts, calibrates and tests technical, laboratory and/or other instructional equipment and its components according to specifications, standards, diagrams, technical manuals and/or instructions of professional staff and faculty.
3. Prepares materials, samples, solutions, cultures, reagents, etc. for laboratory experiments, tests and instruction.
4. Demonstrates for and provides instruction to students and other laboratory users in the proper operation, care and maintenance of laboratory and instructional equipment.

5. Sets up and conducts experiments and class exercises; collects and/or assists in the collection of data; prepares for and performs data analysis; and assists with research projects.
6. Cleans, maintains and repairs laboratory areas and equipment.
7. Maintains inventory of supplies and equipment; orders laboratory materials as needed.
8. Performs related duties such as maintaining records, logs and schedules of equipment use, maintenance and repairs.

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

1. Participate in the care and handling of instructional and experimental animals; gather specimens; and engage in field work.
2. Conduct experiments, tests and surgical procedures on laboratory animals, birds or early embryos to facilitate research projects.
3. Perform tasks related to rodent and pest control, including application and ordering of chemicals; removal of dead birds, rodents and other animals; and maintain necessary records.

V. DIFFERENCES BETWEEN LEVELS IN SERIES:

Technical Assistant II, Higher Education:

Incumbents of positions at this level and higher also:

1. Supervise and coordinate the activities of an instructional, experimental or research laboratory.
2. Provide on-the-job training to technical staff and work study students.
3. Confer with professional staff and faculty concerning methods and procedures and to exchange information.
4. Prepare written reports on laboratory activities.
5. Formulate schedules for the use and maintenance of laboratory facilities.

Technical Assistant III, Higher Education:

Incumbents of positions at this level also:

1. Supervise the implementation of service contracts for the maintenance and repair of equipment by outside vendors; assist in the securing of same.

2. Assist in the preparation of budgets and the selection of repair and maintenance equipment and tools.

VI. RELATIONSHIPS WITH OTHERS:

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

VII. SUPERVISION RECEIVED:

Technical Assistant I, Higher Education:

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

Technical Assistant II, Higher Education:

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

Technical Assistant III, Higher Education:

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

VIII. SUPERVISION EXERCISED:

Technical Assistant I, Higher Education:

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 and/or clerical personnel.

Technical Assistant II, Higher Education:

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.

Technical Assistant III, Higher Education:

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; and indirect supervision (i.e., through an intermediate level supervisor) over 6-15 technical personnel.

IX. WORKING CONDITIONS:

Technical Assistants work in a laboratory or classroom environment; may work under exposure to the harmful effects of fumes, chemicals, gases and other bio-hazardous substances; and may work varied shifts, weekends, holidays or nights.

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

1. Knowledge of the types and uses of small hand tools such as wrenches, pliers, screwdrivers, etc.
2. Knowledge of the types and uses of hand-held power tools such as drills, etc.
3. Skill in using hand-held power tools such as drills, etc.
4. Skill in using small hand tools such as wrenches, pliers, screwdrivers, etc.
5. Ability to read and interpret documents such as manuals, specifications, blueprints, drawings, plans, etc.
6. Ability to understand and apply the laws, rules, policies and procedures governing assigned unit activities.
7. Ability to use precision measuring equipment, gauges and instrumentation.
8. Ability to follow oral and written instructions.
9. Ability to establish and maintain harmonious working relationships with others.
10. Ability to give oral instructions in a precise, understandable manner.
11. Ability to maintain accurate records.
12. Ability to operate standard laboratory equipment.
13. Ability to prepare solutions, media and cultures for laboratory experiments.
14. Ability to identify material needs and order necessary supplies.
15. Ability to collect and analyze data.
16. Ability to perform mathematical calculations.
17. Mechanical aptitude.
18. Manual dexterity.

Based on assignment, the following additional qualifications may be required at hire for Technical Assistant I, Higher Education and higher positions:

1. Knowledge of pesticide application and safety practices used in connection with pest and rodent control.
2. Knowledge of the proper uses and storage of chemicals.
3. Knowledge of animal handling techniques.
4. Knowledge of the fundamental principles and of the laboratory procedures utilized in teaching and conducting research in biology, biochemistry, botany, chemistry, horticulture, microbiology, physiology or zoology.
5. Knowledge of the fundamentals of mechanics, electromechanics and/or electronics.

Additional qualifications required at hire for Technical Assistant II, Higher Education and higher positions:

1. Knowledge of the types, uses and operation of standard laboratory equipment and instrumentation.
2. Knowledge of the terminology and standard abbreviations used in laboratory work.
3. Knowledge of the safety practices and procedures used in connection with laboratory work, including the proper disposal of laboratory materials.
4. Knowledge of calibration and/or adjustment techniques as applied to laboratory equipment and instrumentation.
5. Knowledge of the types and uses of precision measuring equipment, gauges and instrumentation used in connection with laboratory equipment and devices.
6. Knowledge of the procedures and techniques used in the preparation of solutions, media, cultures, etc. for laboratory experiments.
7. Ability to prepare written reports and to present facts clearly both orally and in writing.
8. 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.

9. Ability to plan and prepare schedules for the use of equipment.

Additional qualifications required at hire for Technical Assistant III, Higher Education positions:

1. Knowledge of the principles, practices and techniques of supervision.
2. Knowledge of the types and uses of maintenance and repair equipment and tools.
3. Ability to interpret and implement the provisions of service contracts.
4. Ability to determine costs and to prepare budgets.

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

1. Knowledge of the methods, policies, procedures, techniques, standards and guidelines governing assigned unit activities.
2. Knowledge of the types and uses of agency forms.

Additional qualifications acquired on job in Technical Assistant I, Higher Education positions:

1. Knowledge of the types, uses and operation of standard laboratory equipment and instrumentation.
2. Knowledge of the terminology and standard abbreviations used in laboratory work.
3. Knowledge of the safety practices and procedures used in connection with laboratory work, including the proper disposal of laboratory materials.
4. Knowledge of calibration and/or adjustment techniques as applied to laboratory equipment and instrumentation.
5. Knowledge of the types and uses of precision measuring equipment, gauges and instrumentation used in connection with laboratory equipment and devices.
6. Knowledge of the procedures and techniques used in the preparation of solutions, media, cultures, etc. for laboratory experiments.
7. Knowledge of the format and procedures for data collection and analysis.

Additional qualifications acquired on job in Technical Assistant II, Higher Education positions:

1. Knowledge of the principles, practices and techniques of supervision.
2. Knowledge of the proper format and methods used in general report writing.

3. Knowledge of the methods and procedures for scheduling the use and maintenance of equipment.

Additional qualifications acquired on job in Technical Assistant III, Higher Education positions:

1. Knowledge of the format, methods and procedures used in preparing budgets.
2. Knowledge of the types and provisions of standard service and maintenance contracts.

XII. MINIMUM ENTRANCE REQUIREMENTS:

Technical Assistant I, Higher Education:

None.

Technical Assistant II, Higher Education:

Applicants must have at least (A) one year of full-time, or equivalent part-time, experience in technical work supporting research, instructional or experimental activities or (B) any equivalent combination of the required experience and the substitutions below.

Substitutions:

- I. An Associate's or higher degree with a major in a directly related scientific or technical field such as biology, botany, chemistry, computer science, electronics, horticulture, physiology, zoology, etc. may be substituted for the required experience.*

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

Technical Assistant III, Higher Education:

Applicants must have at least (A) two years of full-time or equivalent part-time, experience in technical work supporting research, instructional or experimental activities and (B) of which at least one year must have been in a supervisory capacity, or (C) any equivalent combination of the required experience and the substitutions below.

Substitutions:

- I. An Associate's or higher degree with a major in a directly related scientific or technical field such as biology, botany, chemistry, computer science, electronics, horticulture, physiology, zoology, etc. may be substituted for a maximum of one year of the required (A) experience.*

*Education toward such a degree will be prorated in the basis of the proportion of the requirements actually completed.

XIII. SPECIAL REQUIREMENTS:

Based on assignment, possession of a current and valid pesticide applicator's license.

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