

MASSACHUSETTS DEPARTMENT OF PERSONNEL ADMINISTRATION

**APPROVED**

CLASSIFICATION SPECIFICATION

DEC 31 1987

**APPROVED**

DEC 31 1987

Department of Personnel  
Administration

Department of Personnel  
Administration

I. ELECTRONIC COMPUTER OPERATOR SERIES:

Electronic Computer Operator I  
Electronic Computer Operator II

II. SUMMARY OF SERIES:

Incumbents of positions in this series operate EDP (electronic data processing) computers and peripheral equipment; schedule daily production runs; identify operational problems and initiate corrective action; and perform related work as required.

The basic purpose of this work is to ensure efficient and effective operation of electronic data processing equipment and timely completion of production requests.

III. ORGANIZATIONAL LEVELS:

Electronic Computer Operator I is the entry-level technical job in this series.

Electronic Computer Operator II is the first-level supervisory job in this series.

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

1. Operates computers and peripheral devices by manipulating console switches; selecting tapes, card decks and/or disks according to job requirements; mounting tapes and disks on drive units, etc. to process production requests; monitors operation of equipment to detect and resolve error conditions in a timely manner.
2. Identifies operational problems and initiates corrective action by reviewing operations logs; by determining appropriate response to error conditions such as stopping jobs; by changing instructions and restarting runs; by visually scanning input data and returning with explanatory material to user for analysis and correction; and by writing reports describing hardware or software malfunctions.
3. Schedules and reschedules computer jobs based on program priorities and availability of input devices to ensure timely job completion.
4. Performs related duties such as making entries into operations logs, meeting with supervisor to discuss progress, goals and priorities, etc.

V. DIFFERENCES BETWEEN LEVELS IN SERIES:

Electronic Computer Operator I:

Incumbents of positions at this level also:

1. Communicate with on-line users, technical personnel, utility companies and/or vendor representatives in order to define input/output procedure or to notify them of existing or potential problems.
2. Operate keypunch machines, remote terminals and related data entry machines; operate typewriters and other standard office machines.
3. Choose the most efficient method for job completion by reviewing documents submitted by programmers, determining the type and number of devices needed for production runs, scheduling daily production runs and rescheduling interrupted or delayed runs.
4. Activate/deactivate computer equipment as a result of emergencies and hardware malfunctions to ensure proper equipment operation.
5. Maintain the physical condition of the computer room equipment and peripheral devices.
6. Perform such functions as assigning batch numbers to input data, analyzing input or output data for completeness and accuracy, preparing output for distribution to users by bursting, decollating, routing, mailing and binding and delivering output to users.

Based on assignment, incumbents at this level may:

1. Operate microfiche printers or developers, teletype transceivers, testing equipment and/or unit record equipment such as interpreters, reproducers, gang punchers and sorters.
2. Update tapes, card deck and disk libraries by cataloguing, classifying or filing tapes, card decks or disk packs and making necessary additions, deletions or changes.
3. Determine causes of program failure by using core dumps, file dumps or program listings.

Electronic Computer Operator II:

Incumbents of positions at this level also:

1. Control computer operations by scheduling duty station coverage; by activating/deactivating computer equipment as a result of emergencies or hardware malfunction; by determining type and number of devices needed for production runs and flow of data in relation to data sets, input/output devices, spool allocations and time requirements; by rescheduling interrupted or delayed runs; and by reviewing input/output data for completeness and accuracy.
2. Prepare work schedules for personnel to ensure that all duty stations are covered; determine staffing needs and proper allocation of staff;

evaluate employee performance through rating forms, interviews or mutual goal setting.

3. Perform detailed review of input-output data for completeness and accuracy.
4. Schedule daily production runs based on program priorities, input/output requirements and sequence of related jobs.
5. Evaluate production logs and sheets in order to identify production problems.
6. Notify users of the status of data sets requiring user action such as deletion, substitution and/or correction.
7. Maintains files and records of schedules, computer use, documentation, etc.
8. Schedule daily production runs based upon program priorities, input/output requirements and sequence of related jobs; schedule test times for analysts and programmers; schedule stages of software system development, including structural walk-throughs and program team assignments.
9. Perform such data entry and control functions as writing input data on standard entry forms preparing job control language and related input data prior to submission to the computer and assigning batch numbers to input data.
10. Search for and retrieve data by alternate means when computer is down.
11. Manage data base files by means of disk allocation, back-up scheduling and reorganization scheduling.
12. Coordinate activities of own section with other data processing sections.
13. Evaluate production sheets and logs to identify production problems.
14. Communicate with staff at mainsite to determine sources, status of runs and allocation of hardware resources.
15. Operate typewriters and other standard office machines and teletype transceivers or unit record equipment such as interpreters, reproducers and gang punches.
16. Determine the causes of program failure using core dumps, file dumps and program listings.
17. Recommend purchase of supplies in order to maintain adequate inventory.
18. Attend seminars, workshops, training sessions and meetings in order to keep abreast of development in the field.

19. Consult with on-line users, technical personnel, utility companies and/or vendor representatives regarding input/output procedures or existing or potential problems.
20. Recommend and implement changes in operating procedure to promote efficiency or economy.
21. Operate keypunch machines, remote terminals and related data entry machines.
22. Catalogue, classify or file tapes, card decks and disk packs.
23. Provide on-the-job training for agency personnel or students.
24. Prepare output for distribution to users by bursting, decollating, routing, mailing and binding.
25. Clean computer room and peripheral devices; maintain physical condition of tapes by cleaning and splicing.

VI. RELATIONSHIPS WITH OTHERS:

Electronic Computer Operator I:

Major work contacts are with supervisors, programmers, on-line users, technical personnel, utility companies and vendor representatives.

Electronic Computer Operator II:

Major work contacts are with supervisors, computer operators, tape librarians, interns and control clerks.

VII. SUPERVISION RECEIVED:

Electronic Computer Operator I:

Incumbents of positions at this level receive direct supervision from Electronic Computer Operators or other employees of higher grade who provide instructions, assign work and review performance through written and verbal reports and inspection for effectiveness and compliance with standards and procedures.

Electronic Computer Operator II:

Incumbents of positions at this level receive general supervision from EDP Operations Supervisor or other employees of higher grade who provide guidance on policy and procedures, assign work and review performance through written and verbal reports and inspection for effectiveness and compliance with policies, procedures and standards.

VIII. SUPERVISION EXERCISED:

Electronic Computer Operator I:

None.

Electronic Computer Operator II:

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 computer operators, tape librarians, interns, control clerks or other clerical personnel; indirect supervision (i.e. through an intermediate level supervisor) over 1-5 computer operators, tape librarians, interns, control clerks or other clerical personnel; and functional supervision (i.e. over certain but not all work activities or over all work activities on a temporary basis) over 1-5 computer operators, tape librarians, interns, control clerks or other clerical personnel.

IX. WORKING CONDITIONS:

Incumbents of positions in this series are subject to the harmful effects of high noise levels; work varied shifts; work irregular hours, including weekends and holidays; may lift and carry heavy objects; and are subject to a standby (on-call) work status.

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

1. Knowledge of terminology, codes and standard abbreviations used in electronic data processing.
2. Knowledge of the types and applications of electronic data processing equipment.
3. Knowledge of the principles of operation of electronic data processing equipment.
4. Knowledge of methods and techniques of operating computers and peripheral equipment consoles, tape drives, input/output devices, etc.).
5. Knowledge of basic mathematics used in electronic data processing.
6. Manual dexterity.
7. Skill in the operation of electronic data processing peripheral equipment related to output preparation, including bursters, decollators and binders.
8. Skill in the operation of typewriter-style keyboard-controlled electronic data processing equipment.
9. Ability to follow oral and written instructions.

10. Ability to understand and apply the laws, rules and regulations governing agency operations.
11. Ability to assemble items of information in accordance with established procedures.
12. Ability to maintain accurate records.
13. Ability to determine proper format and procedure for assembling items of information.
14. Ability to lift and carry heavy objects.
15. Ability to communicate effectively in oral expression.
16. Ability to communicate effectively in writing.
17. Ability to work in a team setting.
18. Ability to work accurately with names, numbers, codes and symbols.
19. Ability to give oral and written instructions in a precise, understandable manner.
20. Ability to make decisions and act quickly in emergency situations.
21. Ability to exercise sound judgment.
22. Ability to understand and apply the policies, procedures, specifications, standards and guidelines governing assigned unit activities.
23. Ability to perform arithmetic computations (addition, subtraction, multiplication and division) with speed and accuracy.
24. Ability to establish rapport with others.
25. Ability to adjust to changing situations to meet emergency, changing program or production requirements.
26. Ability to work independently.

Additional qualifications required at hire for Electronic Computer Operator II positions:

1. Knowledge of the concepts, techniques and applications of electronic data processing.
2. Knowledge of the types and application of job control language applicable to EDP operating systems.
3. Ability to plan, assign and coordinate the activities of others.
4. 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.

5. Knowledge of the concepts, techniques and applications of electronic data processing.
6. Knowledge of the methods and techniques used in organizing work processes and functions to facilitate the use of computer methods.
7. Knowledge of the methods and techniques of computer programming as they pertain to testing and debugging programs.
8. Knowledge of the types, availability and applications of EDP operating systems.
9. Knowledge of the types and application of job control language applicable to EDP operating systems.
10. Knowledge of the mathematical techniques used in solving EDP problems.
11. Knowledge of the principles of EDP systems analysis.
12. Knowledge of the principles, practices and techniques of supervision.
13. Knowledge of the methods of technical report writing.
14. Ability to plan, assign and coordinate the activities of others.
15. Ability to analyze and determine the applicability of EDP data, to draw conclusions and make appropriate recommendations.
16. Ability to prepare and use flow charts and diagrams.
17. Ability to conduct interviews.
18. Ability to prepare technical reports.
19. Ability to conduct training or instruction.
20. Ability to plan training or instruction.
21. Ability to perform mathematical computations using formulae to solve EDP problems.
22. Ability to organize work by establishing operating and/or reporting relationships and by assigning work accordingly.

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

1. Knowledge of laws, rules and regulations governing agency operations.
2. Knowledge of the policies, procedures, specifications, standards and guidelines governing agency operations.
3. Knowledge of the policies, procedures, specifications, standards and guidelines governing assigned unit activities.
4. Knowledge of the types and uses of general office equipment including typewriters, calculators, microfiche, etc.
5. Knowledge of clerical office practices and procedures including office record-keeping.
6. Skill in the operation of general office machines such as typewriters.
7. Skill in operation of EDP equipment such as interpreters, sorters, reproducers, gang punch, etc.

Additional qualifications acquired on job in Electronic Computer Operator I positions:

1. Knowledge of the concepts, techniques and applications of electronic data processing.
2. Knowledge of the types, availability and applications of EDP operating systems.
3. Knowledge of the types and application of job control language applicable to operating systems.
4. Ability to analyze and determine the applicability of EDP data, to draw conclusions and make appropriate recommendations.
5. Ability to prepare and use flow charts and diagrams.

Additional qualifications acquired on job in Electronic Computer Operator II positions:

1. Knowledge of the types, availability and applications of EDP operating systems.
2. Knowledge of the methods and techniques used in organizing work processes and functions to facilitate the use of computer methods.
3. Knowledge of the methods of technical report writing.
4. Ability to analyze and determine the applicability of EDP data, to draw conclusions and make appropriate recommendations.



5. Ability to prepare and use flow charts and diagrams.
6. Ability to prepare technical reports.
7. Ability to plan training or instruction.

XII. MINIMUM ENTRANCE REQUIREMENTS:

Electronic Computer Operator I:

Applicants must have at least (A) one year of full-time, or equivalent part-time, experience in electronic data processing work, the major duties of which included the operation of the console of a computer and/or the peripheral devices used in support of computer operations, or (B) any equivalent combination of the required experience and the substitutions below.

Substitutions:

- I. An Associate's degree or higher with a major in the field of data processing may be substituted for the required experience.\*
- II. A diploma for completion of a one year full-time, or equivalent part-time, program in a recognized non-degree granting business or vocational/ technical school above the high school level with a major in the field of data processing may be substituted for the required experience.\*
- III. An official transcript from a recognized business or technical/ vocational school as evidence of completion of at least 9 semester hours of instruction (or the equivalent in classroom and/or laboratory hours) in computer programming/ operation may be substituted for the required experience.
- IV. Graduation from the data processing course of a recognized vocational/technical high school may be substituted for the required experience.

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

Electronic Computer Operator II:

Applicants must have at least (A) two years of full-time, or equivalent part-time, experience in electronic data processing work, the major duties of which included the operation of the console of a computer and/or the peripheral devices used in support of computer operations, or (B) any equivalent combination of the required experience and the substitutions below.

Substitutions:

- I. An Associate's degree or higher with a major in the field of data processing may be substituted for one year of the required experience.\*
- II. A diploma for completion of a one year full-time, or equivalent part-time, program in a recognized non-degree granting business or vocational/technical school above the high school level with a major in the field of data processing may be substituted for one year of the required experience.\*
- III. An official transcript from a recognized business or technical/vocational school as evidence of completion of a program consisting of at least 650 hours of instruction in computer programming/operation may be substituted for one year of the required experience.
- IV. Graduation from the data processing course of a recognized vocational/technical high school may be substituted for one year of the required experience.

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

XIII. SPECIAL REQUIREMENTS:

None.

Occupational Group 14

Revised 6/87