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**PROGRAMMER I
PROGRAMMER II**

DEFINITION

To assist in the preparation of flow charts and to write computer instructions for processing data on electronic computers and peripheral equipment; to write electronic computer programs, including block diagrams and computer instructions; and to assist faculty and students in the use of data processing facilities.

DISTINGUISHING CHARACTERISTICS

Programmer I

This is the entry level class in the Programmer series and positions within this class are considered to be in a training status. This class is assigned a wide range of duties and work at this level is distinguished from that of the Programmer II in that the duties are of a standard and prescribed nature.

Programmer II

This is the journey level class in the Programmer series. Positions in this class are flexibly staffed and are normally filled by advancement from the lower class of Programmer I, or, when filled from the outside, require prior programming work experience. Appointment to the higher class requires that the employee be performing substantially the full range of duties for the class requiring a complete knowledge of policies, procedures, and methods and meet the qualification standards for the class. Positions assigned to this class may be distinguished from those allocated to the lower level of Programmer I by the higher level of applied knowledge and skill which is expected, and by the staff assistance to higher level supervisory levels which is required.

SUPERVISION RECEIVED AND EXERCISED

Receives general supervision from the appropriate departmental manager.

EXAMPLES OF DUTIES

Duties may include, but are not limited to, the following:

Translate problem statements and flow charts into a series of coded and detailed operating instructions.

Program simple problems and clearly defined segments of large complex programs; assist with tests and in making revisions to eliminate errors.

Participate in the study of electronic data processing applications and the definition of objectives and/or the processing requirements of the application.

Translate problem statements and block diagrams into series of coded and detailed operating instructions; prepare block diagrams and program problems.

(Over)

EXAMPLES OF DUTIES (CONTINUED)

Assist in tests of coded programs and in making revisions to eliminate errors and excess machine time.

Study the principles and techniques of programming, work processes and methods.

Perform related duties as assigned.

MINIMUM QUALIFICATIONS

Programmer I

Knowledge of:

Principles and techniques of program planning, machine scheduling, form design, and control requirements.

Skill to:

Think logically.

Develop electronic computer routines.

Analyze data and draw logical conclusions.

Prepare clear, complete, and concise reports.

Communicate effectively.

Understand and carry out both written and oral instruction in an independent manner.

Establish and maintain cooperative work relationships with those contacted in the performance of required duties.

Experience and Training

Any combination of experience and training that would likely provide the required knowledge and skills is qualifying. A typical way to obtain the knowledge and skills would be:

Experience:

One year of programming experience.

Training:

Equivalent to completion of the requirements for an Associate degree with either a major in data processing or completion of college mathematics through at least one course in differential and integral calculus, and successful completion of a basic programming course and an advanced systems course.

Programmer II

In addition to the minimum qualifications for Programmer I:

Knowledge of:

Operation of electronic computer systems and related equipment.
Basic elements of systems and procedures analysis.

Skill to:

Prepare work flow charts and code steps into machine language.
Write operating instructions and procedures for electronic data processing machine applications.
Apply the principles of data processing machine record keeping to a variety of problems.

Experience and Training

Any combination of experience and training that would likely provide the required knowledge and skills is qualifying. A typical way to obtain the knowledge and skills would be:

Experience:

Two years of programming experience equivalent to the duties assigned to a Programmer I in the District.

Training:

Equivalent to completion of the requirements for an Associate degree with either a major in data processing or completion of college mathematics through at least one course in differential and integral calculus, and successful completion of a basic programming course and an advanced systems course.