Department: Information Systems
Spec: C7-77
Classification: Competitive
Grade: 17

SENIOR COMPUTER PROGRAMMER/ANALYST II

DISTINGUISHING FEATURES OF THE CLASS: This is a high level technical position responsible for generating and maintaining the operating systems, programs, systems design and other software required by a computer system and its user agencies. The work involves the investigation of new computer industry developments, such as software alternatives, systems productivity tools, design methodologies, documentation approaches and programming efficiency and the preparation of recommendations for present and future departmental requirements. The work is performed under the direct supervision of the Director of Information Systems in accordance with established policies and procedures. Supervision may be exercised over technical employees involved in systems programming. The incumbent does related work as required.

TYPICAL WORK ACTIVITIES:

Evaluates operating systems releases, upgrades, makes recommendations, installs and maintains the software;
Develops and prepares operator instructions and documentation relating to the system programs;
Acts as a debugging expert for the computer center;
Reviews new technical developments for applicability to operating systems and system software;
Advises Programmers and Operators on system functions, determines optimum equipment configuration, and selects standards routines; confers with administrative supervisor on program ideas to improve production output;
Works with operations staff to determine and recommend to the Director increased hardware capabilities;
Conducts both short and long-term hardware/software planning studies for installation;
Evaluates and prepares communications regarding computer hardware and software specifications;
Monitors, authorizes and controls the computer center's access methods to data bases and the teleprocessing network;
Oversees the establishment, implementation and monitoring of procedures for data bases recovery and security;
Anticipates future requirements of applications and reviews new technical developments for application to current operating systems and system software.

FULL PERFORMANCE KNOWLEDGE, SKILLS, ABILITIES AND PERSONAL CHARACTERISTICS:

Thorough knowledge of the current principles, practices, methods, capabilities and techniques of high-speed electronic data processing including hardware, software and teleprocessing; thorough knowledge of the current principles, practices and methodologies of computer operating systems and their respective implementations; through knowledge of business concepts; thorough

knowledge of the concepts, facilities, and internals of subsystems, utility programs and programming languages; thorough knowledge of network architecture, capacity planning and performance monitoring; good knowledge of new developments in the computer industry which may be applicable for institution in the department; good knowledge of the principles and practices of systems analysis and statistical analysis; ability to communicate effectively, both orally and in writing, ability to learn new computer languages, ability to supervise subordinates in a manner conducive to full performance and high moral; tact, courtesy, physical condition commensurate with the demands of the position.

PROMOTION QUALIFICATIONS:

Four (4) years of permanent competitive status as a Sr. Computer Programmer/Analyst in the Information Systems Department.

MINIMUM QUALIFICATIONS: Either

(a)   Graduation from a regionally accredited or New York State registered college or university with a bachelor's Degree in Computer Science or related field, included or supplemented by sixteen (16) semester hours in computer programming and three (3) years paid experience in the operation and programming of electronic computer systems, which shall have involved systems analysis and computer programming; or

(b)   Graduation from a regionally accredited or N.Y.S. registered college or university with an Associate's Degree in Applied Science in Electronic Data Processing and five (5) years paid experience in the operation and programming of electronic computer systems, two years of which shall have involved systems analysis and computer programming; or

(c)   Graduation from high school or possession of a high school equivalency diploma, supplemented by six (6) semester hours in computer science (including programming) from a regionally accredited or New York State registered college or university and five (5) years of paid experience in the operation of electronic computer equipment, two (2) years of which shall have involved systems analysis and computer programming; or

(d)   An equivalent combination of training and experience as defined by the limits of (a), (b), and (c).

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