

SYSTEMS PROGRAMMER I

DISTINGUISHING FEATURES OF THE CLASS: This is a 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. An employee in this class designs logic for systems programs and for modifications to the systems. The duties involve providing expert advice on operating system theory, job control, utilities, linkage and loading programs. The position is distinguished from Systems Programmer II by the supervision received and the complexity of assignments. Work is performed under the direct supervision of a higher level technical employee. Supervision may be exercised over technical employees involved in systems programming. Does related work as required.

TYPICAL WORK ACTIVITIES:

Codes and tests in-house systems programs and analyzes program or system performance during testing;
Conducts research and planning for new software and hardware technology;
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 standard routines;
Confers with supervisor on program ideas to improve production output;
Evaluates and prepares communications, regarding computer hardware and software specifications;
Authorizes and controls the computer center's access methods to data bases;
Establishes, implements and monitors procedures for data bases recovery and security;
Monitor statistics and performance of database;
Assists in reviewing new technical developments for application to current operating systems and system software.

FULL PERFORMANCE KNOWLEDGE, SKILLS, ABILITIES AND PERSONAL CHARACTERISTICS:

Good knowledge of the current principles, practices, methods, capabilities and techniques of high-speed electronic data processing including hardware, software and teleprocessing;
Good knowledge of the current principles, practices, and methodologies of computer operating systems and their respective implementations;
Good knowledge of business concepts;
Good knowledge of the concepts, facilities and internals of subsystems, utility programs and programming languages;

Good knowledge of network architecture and performance monitoring;
Good knowledge of the principles and practices of systems analysis
and statistical analysis;
Good knowledge of the assembler language;
Ability to utilize a computer system to its fullest capacity;
Tact;
Courtesy;
Physical condition commensurate with the demands of the position.

MINIMUM QUALIFICATIONS:

- A) Graduation from a regionally accredited or New York State registered college or university with a Bachelor's Degree including or supplemented by 24 credit hours in computer science or programming courses and one year of programming or data communications experience and one year of experience in systems programming; OR
- B) Completion of at least 60 semester credit hours at a regionally accredited or New York State registered college or university including or supplemented by 12 credit hours in computer science or programming courses, and two years of programming or data communications experience and one year of systems programming experience; OR
- C) Three years of programming or data communications experience and one year of systems programming experience; OR
- D) An equivalent combination of training and experience as defined by the limits of A), B) and C) above.

NOTE: Education beyond the Bachelor's Degree in the field of computer science may be substituted for up to one year of systems programming experience.