

DEPARTMENT: ALL APPLICABLE
CLASSIFICATION: COMPETITIVE
APPROVED: OCTOBER 5, 2020

SYSTEMS ANALYST

DISTINGUISHING FEATURES OF THE CLASS: Under direction, plans, conducts and develops complex analytical studies of existing operations and programs to determine the feasibility of a conversion to information technology systems; organizes and directs the execution of systems analysis and design tasks, and programming tasks performed by subordinates. The work involves responsibility for reviewing, analyzing, developing specifications and documentation for, troubleshooting, and programming for implementation of both changes to existing and new information technology systems. The work is carried out in accordance with sound, modern, up-to-date methods, techniques, and procedures as utilized for implementation of information technology systems, and involves the study and analysis of systems and their adaptation to available computer resources; conferring with user departments to determine their information technology needs and to devise information technology solutions; analyzing the flow of information and its adaptation for computer use; and testing and debugging new systems planned for implementation. Work is performed under the general supervision of the Director of Information Technology with considerable leeway allowed the incumbent for the exercise of independent judgment in planning out the details of assignments as long as standard operating procedures and scheduled completion timeframes are followed. Additional guidelines may also be set by the head of the department in which specific projects are being undertaken. Supervision of subordinates is usually not a feature of this class of positions. Does related work as required.

TYPICAL WORK ACTIVITIES:

1. Designs detailed program specifications, documentation forms, and flow charts and diagrams to adapt various types of user department operating methods and procedures to electronic information technology systems;
2. Performs computer programming tasks including: developing the logic of a computer program based on program specifications, flowcharts and other documentation; writing program instructions (code) in a specific programming language; preparing sample test data, debugging the program code, and testing the program within the overall system with sample and actual data, and making modifications; develops program and user documentation and operator instructions; develops software that operates on multiple platforms as needed; develops reports, prepares data for export, establishes procedures for importing of data; prepares data for display on other media (Internet, Intranet, PDAs, laptops, etc.) including the integration of databases into web sites; and troubleshoots with application software vendors for user/system problem resolution;
3. Performs help-desk tasks including: providing first-line diagnosing/trouble-shooting of computer problems relating to software packages, basic hardware issues, security and password problems; arranging with service providers for repair of desktop, laptop and Personal Data Assistants (PDAs), computer hardware, desktop, laptop and PDA computer operating system software and peripheral equipment; referring questions and problems involving computer hardware, connectivity, software and peripheral equipment associated with the computer system to the appropriate specialist; conducting follow-up checks to ensure that problems are resolved to each staff/customer's satisfaction; coordinating problem-solving efforts regarding terminals and data communication lines with vendors and systems users;
4. Performs business/systems analysis activities including: consulting with users to ascertain required project scopes and results; analyzing work procedures to identify those which are adaptable to computer applications; performing cost benefit analysis and feasibility on computer applications; devising/applying plans to upgrade from manual methods to computerized systems; preparing workflow diagrams and structuring charts to define workflow processes; developing models that document data stored and work processes performed; defining interface and communications requirements; consulting with vendors to ascertain the products available to meet the customers needs; acting as a liaison between the customer and vendor personnel that support purchased software; processing software trouble reports and analyzing the system to determine possible problem areas; working on complex reporting requirements and providing data extraction and analysis for software purchased from an outside vendor; and recommending hardware and software to meet user needs;
5. Manages computer projects by assigning personnel to projects and directing their activities; providing technical guidance, assistance and/or training to project staff; and by studying technical problems and recommending solutions;
6. Provides training for computer users by: assessing the training needs to identify types and contents of training; selecting training methods to be used; providing instruction in a formal classroom setting or on a one-to-one basis; evaluating training program effectiveness and recommending changes; developing and/or reviewing user manuals, training materials and related forms; directing others who develop/deliver training services; and by providing in depth support for specific applications;
7. Operates a microcomputer and utilizes a variety of software programs and related peripheral equipment;

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FULL PERFORMANCE KNOWLEDGES, SKILLS, ABILITIES & PERSONAL CHARACTERISTICS:

Thorough knowledge of modern methods, principles, techniques and concepts utilized in performing systems analysis; thorough knowledge of electronic computer programming principles, techniques and concepts; thorough knowledge of modern techniques, up-to-date methods, and procedures as utilized for implementation of information technology systems; good knowledge of modern methods of computer programming; working knowledge of the goals and objectives of municipal departments; working knowledge of modern training methods; working knowledge of project management; skill in operating a micro-computer keyboard; ability to plan, develop and administer information technology systems; ability to train others; ability to manage information technology projects; ability to understand and interpret complex oral instructions and/or written directions; ability to analyze and organize data and prepare records and reports; ability to perform close, detailed work involving considerable visual effort and concentration; ability to communicate effectively both orally and in writing; ability to establish and maintain effective working relationships with others; physical condition commensurate with the demands of the position.

SUGGESTED PROMOTIONAL QUALIFICATIONS:

Five (5) years of permanent competitive status as a Computer Programmer in the Niagara County Information Technology Department.

MINIMUM QUALIFICATIONS: Either:

1. Graduation from a regionally accredited college or university or one accredited by the New York State Board of Regents to grant degrees with a Bachelor's Degree in data processing, information technology, computer information systems, or closely related field **and** two (2) years of experience in computer systems analysis and design of computer programs; or
2. Graduation from a regionally accredited college or university or one accredited by the New York State Board of Regents to grant degrees with an Associate's Degree in data processing, information technology, computer information systems, or closely related field **and** four (4) years of experience in computer systems analysis and design of computer programs; or
3. An equivalent combination of training and experience as defined by the limits of (1) and (2).

NOTES:

1. Successful completion of a course of study or certification offered by a technical training institute, vendor sponsored or a corporate training program may be substituted for the 12 semester credit hours; or for one (1) year of appropriate experience, if the following conditions are met:
 - a) The course of training involves learning the fundamental aspects of information technology systems design, analysis, programming, maintenance and administration, or a similar course with technical emphasis.
 - b) The candidate provides an official description of the coursework and evidence that it was successfully completed.
 - c) Coursework in the use of specific programs such as WORD, EXCEL or ACCESS and data entry is not acceptable.
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3. Verifiable part-time and/or volunteer experience will be pro-rated toward meeting full-time experience requirements.