CLASS TITLE: SENIOR PROGRAMMER/ANALYST

CHARACTERISTICS OF THE CLASS

Under general supervision, revises or develops existing and proposed applications for distributed and centralized processing systems, and performs related duties as required

ESSENTIAL DUTIES

- Analyzes current business operations by interviewing users and observing manual and automated procedures
- Analyzes business information problems using charts and diagrams
- Prepares program specifications, logic flowcharts, and diagrams indicating mathematical computations and sequence of computer operations necessary to process and output data in the required formats
- Codes, tests, debugs, and installs difficult programs for both centralized and distributed computer systems
- Modifies and/or maintains existing programs and databases to conform to business requirements or systems changes
- Provides technical information on current systems to software vendors contracted to design major computer systems
- Monitors applications to determine conformance with user requirements
- Trains user staff on systems operations, software, and procedures
- Prepares documentation on program coding and testing processes
- Troubleshoots and corrects software malfunctions
- Configures software applications for operation on existing hardware
- Writes computer programs

NOTE: *The list of essential duties is not intended to be inclusive; there may be other duties that are essential to particular positions within the class.*

MINIMUM QUALIFICATIONS

Education, Training, and Experience

- Graduation from an accredited college or university with a Bachelor's degree in Computer Sciences, Information Technology/Systems, or a directly related field, plus two years of experience in the design and development of computerized systems, or an equivalent combination of education, training and experience, provided that the minimum degree requirement is met.

Licensure, Certification, or Other Qualifications

- None

WORKING CONDITIONS

- General office environment

EQUIPMENT

- Standard office equipment (e.g., telephone, printer, photocopier, fax machine, calculator)
- Personal computers and peripheral equipment (e.g., desktop computer, laptop computer, hand-held computer, computer terminals, modems, scanner)
- Client/server computer
- Local area/wide area communications network
- Micro and mini computers

PHYSICAL REQUIREMENTS

- Ability to operate a personal computer and related equipment

KNOWLEDGE, SKILLS, ABILITIES, AND OTHER WORK REQUIREMENTS

Knowledge

Moderate knowledge of:

- *applicable computer software packages
- *methods, practices, and procedures for analyzing and resolving computer-related problems
- *commercial computer systems applications and their capabilities
- *methods and techniques of database analysis and design
- *computer operating systems
- *programming logic, data manipulation, and integrated environments

Some knowledge of:

- *computer systems management
- *IT systems development practices, standards, and procedures

Knowledge of applicable City and department policies, procedures, rules, and regulations

Other knowledge as required for successful performance in the Programmer/Analyst class

Skills

- ACTIVE LEARNING - Understand the implications of new information for both current and future problem-solving and decision-making
- ACTIVE LISTENING - Give full attention to what other people are saying, taking time to understand the points being made, ask questions as appropriate, and not interrupt at inappropriate times
- CRITICAL THINKING - Use logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions, or approaches to problems
- COMPLEX PROBLEM SOLVING - Identify complex problems and review related information to develop and evaluate options and implement solutions
- SYSTEMS EVALUATION - Identify measures or indicators of system performance and the actions needed to improve or correct performance relative to the goals of the system
- PROGRAMMING - Write computer programs for various purposes
- QUALITY CONTROL ANALYSIS - Conduct tests and inspections of products, services, or processes to evaluate quality or performance
- TECHNOLOGY DESIGN – Generate or adapt equipment and technology to serve users needs

Other skills as required for successful performance in the Programmer/Analyst class

Abilities

- COMPREHEND ORAL INFORMATION - Listen to and understand information and ideas presented through spoken words and sentences
- SPEAK - Communicate information and ideas in speaking so others will understand
- COMPREHEND WRITTEN INFORMATION - Read and understand information and ideas presented in writing
- WRITE - Communicate information and ideas in writing so others will understand
- REASON TO SOLVE PROBLEMS - Apply general rules to specific problems to produce answers that make sense
- ORGANIZE INFORMATION - Arrange things or actions in a certain order or pattern according to a specific rule or set of rules (e.g., patterns of numbers, letters, words, pictures, mathematical operations)
- REASON MATHEMATICALLY – Choose the right mathematical methods or formulas to solve a problem

Other abilities as required for successful performance in the Programmer/Analyst class

Other Work Requirements

- INITIATIVE - Demonstrate willingness to take on job challenges
- DEPENDABILITY - Demonstrate reliability, responsibility, and dependability and fulfill obligations
- ATTENTION TO DETAIL - Pay careful attention to detail and thoroughness in completing work tasks
- ANALYTICAL THINKING - Analyze information and using logic to address work or job issues and problems

Other characteristics as required for successful performance in the Programmer/Analyst class

All employees of the City of Chicago must demonstrate commitment to and compliance with applicable state and federal laws, and City ordinances and rules; the City's Ethics standards; and other City policies and procedures.

The City of Chicago will consider equivalent foreign degrees, accreditations, and credentials in evaluating qualifications.

* May be required at entry.

City of Chicago
Department of Human Resources
July, 2010
February, 2022