CLASS TITLE: PROGRAMMER/ANALYST

CHARACTERISTICS OF THE CLASS

Under supervision, assists in the development and modification of centralized automated systems to replace manual processes, and performs related duties as required

ESSENTIAL DUTIES

- Interviews systems users to identify information processing needs
- Analyzes work flow and data requirements to determine the feasibility of converting processes to computerized systems
- Prepares visual representations of procedures identified for conversion to computerized systems
- Designs routine systems, updates existing systems, or modifies vendor products to meet user needs
- Assists in modifying and/or maintaining existing programs and databases to conform to business requirements or systems changes
- Specifies conversion and maintenance criteria, input and output file details, physical data structures, and data screens to implement systems changes
- Writes detailed program specifications for the development of computer software
- Confers with vendors on systems design and standard systems malfunctions
- Assists in the installation and testing of computer applications and the resolution of operational problems
- Assists in coordinating access to existing systems, ensuring security and data integrity
- Trains user staff on systems operations, software, and procedures
- Prepares training guides and systems documentation for new and modified systems
- 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 one year of programming experience.

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

Some knowledge of:

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

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

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
- 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 user needs

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 MATHEMATICALLY – Choose the right mathematical methods or formulas to solve a problem
- 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 patter according to a specific rule or set of rules (e.g., patterns of numbers, letter, words, pictures, mathematical operations)

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

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

Date: July, 2010