



**Code: 0611**  
Family: Information Technology  
Service: Administrative  
Group: Clerical, Accounting, and General Office  
Series: Information Technology

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## **CLASS TITLE: SYSTEMS PROGRAMMER**

### **CHARACTERISTICS OF THE CLASS**

Under supervision, provides technical support in the installation and maintenance of operating systems software, and performs related duties as required

This class is the entry level for the Systems Programmer class series and occupants generally have some education or experience in the fundamentals of systems programming and configuration. Positions in this class are allocated across various City departments and perform a wide range of functions that are specific to the operational needs of the department. Common specialty titles or functional roles for positions in this class include but are not limited to: *Systems Software Programmer, Software Analyst, Application Analyst*.

Examples of the essential core functions that characterize this class are provided below for the purpose of distinguishing the level and scope of duties and responsibilities allocated to this class.

### **ESSENTIAL DUTIES**

- Assists in installing, testing and evaluating new operating systems software for compatibility with existing systems
- Monitors and evaluates systems performance by tracking and identifying hardware and software problems
- Tunes, reconfigures and updates operating systems to ensure maximum efficiency
- Codes, tests and debugs basic operating systems programs
- Assists in systems disaster recovery tasks by backing up and reinstalling system program files
- Prepares documentation describing systems operations and procedures (e.g., reports on proposed system upgrades, edits to IT policies and procedures)
- Maintains and modifies existing operating systems programs to conform to business requirements or systems changes
- Assists in defining development tools and procedures for operational support
- Assists in recovering systems-oriented files after failures
- May assist senior level staff in developing specialized systems 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, or an equivalent combination of education, training and 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

## PHYSICAL REQUIREMENTS

- No specific requirements

## KNOWLEDGE, SKILLS, ABILITIES, AND OTHER WORK REQUIREMENTS

### Knowledge

Moderate knowledge of:

- computer operating systems
- \*programming logic and languages, data manipulation, and integrated environments
- space management, file back up, and restoration/disaster recovery techniques
- systems communications protocols

Some knowledge of:

- operation and installation of hardware and peripheral equipment
- applicable computer software packages
- \*methods, practices, and procedures for analyzing and resolving computer-related problems
- commercial computer systems applications and their capabilities
- computer systems management
- IT systems development practices, standards, and procedures

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, take 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
- \*MATHEMATICS - Use mathematics to solve problems
- \*JUDGEMENT AND DECISION MAKING - Consider the relative costs and benefits of potential actions to choose the most appropriate one
- SYSTEMS ANALYSIS - Determine how a system should work and how changes in conditions, operations, and the environment will affect outcomes

- 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
- TROUBLESHOOTING - Determine causes of operating errors and decide what to do about it

### **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
- REASON MATHEMATICALLY - Choose the right mathematical methods or formulas to solve a problem
- MAKE SENSE OF INFORMATION - Quickly make sense of, combine, and organize information into meaningful patterns
- REACH CONCLUSIONS - Combine pieces of information to form general rules or conclusions (includes finding a relationship among seemingly unrelated events)

### **Other Work Requirements**

- PERSISTENCE - Persist in the face of obstacles on the job
- INITIATIVE - Demonstrate willingness to take on job challenges
- ADAPTABILITY/FLEXIBILITY - Be open to change (positive or negative) and to considerable variety in the workplace
- DEPENDABILITY - Demonstrate reliability, responsibility, and dependability and fulfill obligations
- ATTENTION TO DETAIL - Pay careful attention to detail and thoroughness in completing work tasks
- INNOVATION - Think creatively about alternatives to come up with new ideas for and answers to work-related problems
- 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.

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City of Chicago  
Department of Human Resources  
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