CLASS TITLE: GIS MANAGER - EXCLUDED

CHARACTERISTICS OF THE CLASS

Under direction, manages the development and maintenance of the City-wide enterprise Geographic Information System (GIS), and performs related duties as required

ESSENTIAL DUTIES

- Directs staff engaged in analyzing, standardizing, and consolidating geographic data sets from various City departments onto the City-wide GIS system

- Develops standards for the maintenance of new GIS data sets and applications to ensure integrity and compatibility with the enterprise GIS system

- Establishes standards and procedures for the integration and extraction of data from the enterprise GIS system

- Directs staff in providing assistance to City departments in developing and accessing applications on the City-wide GIS system

- Coordinates the efforts of representatives from City departments engaged in resolving technical issues related to the enterprise GIS system

- Meets with vendors and outside agencies to develop GIS resources and technologies

- Analyzes and prepares maps and reports of GIS data for various City departments and other government and private sector agencies to enable the sharing of geographically related data (e.g., for press conferences, public meetings, meetings with officials)

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, Geography, Urban Planning, or a directly related field, plus four years of GIS technology experience in the use and understanding of Arc Info, Arc View, and relational database systems of which one year is in a supervisory role related to the responsibilities of the position, 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 systems

PHYSICAL REQUIREMENTS

- No specific requirements

KNOWLEDGE, SKILLS, ABILITIES, AND OTHER WORK REQUIREMENTS

Knowledge

Advanced knowledge of:

- *geographic information systems (GIS) including hardware, software (e.g., Arc Info, Arc View), and communication technologies
- *methods and techniques of database analysis and design (e.g., geographic data processing and cartographic principles and procedures)

Considerable knowledge of:

- *operation and installation of hardware and peripheral equipment
- *computer operating systems
- *data security policies and processes
- *space management, file back up, and restoration/disaster recovery techniques
- *Web design principles and technologies

Moderate knowledge of:

- *methods, practices, and procedures for analyzing and resolving computer-related problems
- commercial computer systems applications and their capabilities
- *IT systems development practices, standards, and procedures
- *programming logic, data manipulation, and integrated environments

Some knowledge of:

- computer systems management
- data warehousing and processing technology, design of security architectures for data warehouse systems, and tools to query and analyze data in a warehouse database
- mainframe operating systems and data conversion techniques to client/server systems
- network and network operating systems
- applicable federal, state, and local laws, regulations, and guidelines
- *management and supervisory methods, practices, and procedures

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

Other knowledge as required for successful performance in the GIS Database Analyst class

Skills

- *ACTIVE LEARNING - Understand the implications of new information for both current and future problem-solving and decision-making
- *CRITICAL THINKING - Use logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions, or approaches to problems

- *MONITORING - Monitor and assess performance of one's self, other individuals, or organizations to make improvements or take corrective action
- *MATHEMATICS – Use mathematics to solve problems
- *COMPLEX PROBLEM SOLVING - Identify complex problems and review related information to develop and evaluate options and implement solutions
- *COORDINATION WITH OTHERS - Adjust actions in relation to others' actions
- *INSTRUCTING - Teach others how to do something
- *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
- *PROGRAMMING - Write computer programs for various purposes
- *QUALITY CONTROL ANALYSIS – Conduct tests and inspection 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

Other skills as required for successful performance in the GIS Database 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
- REASON MATHEMATICALLY - Choose the right mathematical methods or formulas to solve a problem
- VISUALIZE - Imagine how something will look after it is moved around or when its parts are moved or rearranged
- MAKE SENSE OF INFORMATION - Quickly make sense of, combine, and organize information into meaningful patterns
- 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)
- REACH CONCLUSIONS - Combine pieces of information to form general rules or conclusions (includes finding a relationship among seemingly unrelated events)

Other abilities as required for successful performance in the GIS Database Analyst class

Other Work Requirements

- INITIATIVE - Demonstrate willingness to take on job challenges
- LEADERSHIP - Demonstrate willingness to lead, take charge, and offer opinions and direction

- 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 GIS Database 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
May, 2024