



**Code: 0620**

Family: Information Technology

Service: Administrative

Group: Clerical, Accounting, and General Office

Series: Information Technology

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## **CLASS TITLE: GIS ANALYST**

### **CHARACTERISTICS OF THE CLASS**

Under supervision, uses Geographic Information Systems (GIS) software to create data, maintain databases, and produce maps and other graphic materials, and performs related duties as required

### **ESSENTIAL DUTIES**

- Accesses the City's GIS data repository to obtain base map data and data layers
- Gathers and updates field data using Global Positioning System (GPS) and other surveying instruments
- Assists in the creation of new data layers for inclusion in the department's database
- Prepares maps and reports with appropriate data layers illustrating requested data in geographic format to meet users' needs (e.g., use in Web applications)
- Reviews data sets provided by department staff for use in creating GIS maps
- Uses spreadsheets and GIS software to convert data sets to a GIS format
- Geocodes data files and manipulates data layers
- Assists in monitoring data files on the server and managing file storage disk space
- Assists departmental GIS users in accessing GIS data and using the software to produce maps
- Uses scripting language to create user interfaces and to automate time consuming or complicated tasks
- Assists in the design and maintenance of GIS databases and the City's centralized GIS repository

**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 with an Associate's degree in Computer Sciences, Information Technology/Systems, Geography, Urban Planning, or a directly related field, PLUS at least one (1) year of work experience using GIS software, 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, scanner)

- Client/server computer systems

### **PHYSICAL REQUIREMENTS**

- No specific requirements

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

#### **Knowledge**

Moderate knowledge of:

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

Some 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

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
- \*COMPLEX PROBLEM SOLVING - Identify complex problems and review related information to develop and evaluate options and implement solutions
- 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 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 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)
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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  
August, 2020