



**Code: 0641**

Family: Information Technology

Service: Administrative

Group: Clerical, Accounting, and General Office

Series: Information Technology

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## **CLASS TITLE: FORENSIC DATA ANALYST**

### **CHARACTERISTICS OF THE CLASS**

Under general supervision, extracts and analyzes data from various city databases and external computer applications in order to support investigations conducted by the Office of the Inspector General, and performs related duties as required

### **ESSENTIAL DUTIES**

- Meets with information technology administrators assigned to operating departments and within external organizations (e.g., financial institutions, utility companies) to determine system compatibility with current city applications
- Participates in writing system specifications and interprets requirements needed for the effective interface with existing computer applications
- Provides technical information on current systems to outside vendors responsible for developing city computer systems and databases
- Uses regression analysis software to analyze data and writes code in order to extract and cross-reference requested data from identified databases and applications
- Converts large sets of raw data into functional formats and downloads into program applications for use by requesting staff
- Reviews and analyzes historical data in order to assist in the evaluation of deviations and trends in a city department's administrative, operational and programmatic work output
- Compiles and generates statistical and narrative reports to summarize the findings of computer analysis work
- Creates, updates and maintains comprehensive inventory of systems and databases used throughout the city service
- Functions as lead worker in the oversight of special data analysis projects including managing timelines, providing technical assistance to team members in extracting and analyzing complex data and apprising management of project status, as required

**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, Business Administration or a directly related field, plus two years of data analysis or data management work experience, 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
- Micro and mini computers

## **PHYSICAL REQUIREMENTS**

- No specific requirements

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

### **Knowledge**

Moderate knowledge of:

- \*applicable computer software packages
- \*methods and techniques of data base analysis and design
- \*tools to query and analyze data in a warehouse database
- \*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

### **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 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 users 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
- MAKE SENSE OF INFORMATION - Quickly make sense of, combine, and organize information into meaningful patterns
- COMPARE AND RECOGNIZE DIFFERENCES - Quickly and accurately compare similarities and differences among sets of letters, numbers, objects, pictures, or patterns (includes comparing a presented object with a remembered object)
- 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)

**Other Work Requirements**

- 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.