



**Code: 1718**

Family: Planning and Urban Development  
Service: Administrative  
Group: Statistical, Technical, and Analytical  
Series: Statistical

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

### **CHARACTERISTICS OF THE CLASS**

Under direction, plans and directs the activities of the Analytics Section in the Office of the Inspector General (OIG), and performs related duties as required

### **ESSENTIAL DUTIES**

- Directs staff engaged in data oriented analysis, business and exploratory analytics utilized to support Citywide investigations
- Leads and performs advanced analysis by developing statistical models and techniques to evaluate large, complex, operational data from varying sources
- Directs the use of predictive analytics to leverage data for decision making
- Oversees large-scale projects including managing timelines, providing technical assistance to team members in extracting and analyzing complex data and apprising management of project status
- Evaluates performance of subordinate staff and makes recommendations for disciplinary action
- Provides direction in statistical techniques to transform data into information to develop investigative leads, validate assumptions, and decipher underlying trends and patterns indicative of fraudulent or inefficient programs
- Oversees the evaluation and design of reports, informational graphics and visual aids to inform stakeholders of issues impacting the City
- Compiles large data sets for statistical models, trends, predictions, and analyses that enable departments to develop cases, conduct citywide program reviews and audits, and/or monitor citywide hiring practices
- Develops and integrates innovate techniques for data mining and exploratory analytics resulting in the extraction of critical information
- Plans and allocates resources across different departmental initiatives related to data mining and analysis
- Keeps abreast of new or emerging data analytics trends and best practices and recommends changes to departmental policies and procedures as appropriate

**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 Master's degree or higher in Data Analytics, Statistics, Mathematics, Economics, Computer Science, or Information Technology/Systems, or a directly related field, plus five (5) years of work experience in data analysis or data management, of which two (2) years are in a supervisory role related to the responsibilities of the position

#### **Licensure, Certification, or Other Qualifications**

- None

**WORKING CONDITIONS**

- General office environment

**EQUIPMENT**

- Standard office equipment (e.g., telephone, printer, photocopier, fax machine, calculator)
- Computers and peripheral equipment (e.g., personal computer, computer terminals, hand-held computer)

**PHYSICAL REQUIREMENTS**

- No specific requirements

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

Comprehensive knowledge of:

- \*methods and techniques of data design, analysis and management
- \*methods and techniques of predictive analytics
- \*programming logic and languages, data manipulation and integrated environments
- \*research methods, techniques and procedures
- \*applicable computer software packages

Considerable knowledge of:

- \*data mining processes and tools
- \*data query, analysis and reporting

Moderate knowledge of:

- \*management and supervisory methods, practices, and procedures

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

**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
- REASON MATHEMATICALLY – Choose the right mathematical methods or formulas to solve a problem
- ANALYTICAL THINKING - Analyze information and using logic to address work or job issues and problems
- 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)
- REACH CONCLUSIONS – Combine pieces of information to firm general rules or conclusions

**Other Work Requirements**

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

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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  
April, 2019