



**Code: 06F5**

Family: IT-Leadership

Service: Administrative

Group: Clerical, Accounting, and General Office

Series: Information Technology

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## **CLASS TITLE: DATA ANALYTICS LEAD**

### **CHARACTERISTICS OF THE CLASS**

Under direction, this is a Lead level classification. The class is primarily supervisory in nature overseeing the identification, capture, analysis, and management of organization and department data, and performs related duties as required

This class is assigned to the Leadership Technology Job Family which consists of positions responsible for overseeing the identification, prioritization, and delivery of work activities, coach and developing employees, providing thought leadership to business partners, and shaping and executing the technology vision and strategy to maximize business values.

### **ESSENTIAL DUTIES**

- Designs, creates, and maintains relational databases and data systems
- Collaborates with other IT analysts to identify data issues and prioritize improvements
- Informs solution design and improvements to meet data quality goals
- Develops procedures for data validation, analysis, and presentation
- Defines data and analytics strategy practices, leads the creation (and assures the ongoing relevance) of the data and analytics strategy in collaboration with the senior management
- Establish the governance of data and algorithms used for analysis, analytical applications, and automated decision-making
- Creates data visualizations and reports to present to audiences using presentation tools
- Creates standards and patterns for data distribution and retention
- Implements statistical models to identify and reveal trends, patterns, relationships in data to provide guidance to others for decision-making proc
- Enables access to internal and external data sources
- Suggests analytics opportunities and best practices
- Contributes to management of central data stores and metadata to establish quality expectations
- Identifies opportunities to increase data quality, including automation and data entry procedural training
- Monitors business perception of data quality
- Creates and implements techniques for data collection, accuracy, and management
- Reports findings and works proactively with data governance, data stewards, business systems to propose methods for remediation
- Owns aspects of development of services/products or solutions to drive decision-making and action
- Organize and leads a data and analytics governance council to provide executive sponsorship for and oversight of governance policy creation and compliance
- Ensures that appropriate audit controls exist for data and analytics that serve as the source material for regulatory reports

- Ensures that the data used for financial reporting and to support legal requirements is valid, reliable, traceable, timely, available, secure, and consistent

**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, plus four (4) years of relevant experience in an analytical position, or an equivalent combination of education, training, and experience
- Strong experience using data visualization software and developing skills in data modeling preferred
- Prior experience in coaching other team members and providing training preferred

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

- None

## **WORKING CONDITIONS**

- General office environment

## **EQUIPMENT**

- Standard office equipment (e.g., phone, printer, copier, computers, mobile devices)
- Standard productivity suites (e.g., Microsoft Office Suite, OpenOffice, Google Workspace)

## **PHYSICAL REQUIREMENTS**

- No specific requirements

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

### **Knowledge**

Comprehensive knowledge of:

- \*data integration tools, data management architectures such as data warehouse, data lake, data hub management, and data exploration techniques (e.g., binning, pivoting, summarizing, and finding correlations)
- \*analytics, visualization, and business intelligence tools
- \*data structures, patterns, and data models, and related industry-standard methodologies
- source-to-target mapping, Extract-Transform-Load (ETL) processing, and Change Data Capture (CDC) concepts
- statistical software, database queries, and programming languages (e.g., Java, C++, Scala, SQL, Hive, Python, and R), XML, JSON, XSD's
- Big Data concepts, frameworks, products, and tools
- \*data models and structures as well as database design tools (e.g., Visio, SQL)
- leading data modeling, database and data management, SQL coding, data warehousing, reporting, data warehousing, relational databases, and data integrity skills

Moderate knowledge of:

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

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

Other knowledge as required for successful performance in the lower-level series.

### **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
- **\*LEARNING STRATEGIES** - Select and use training/instructional methods and procedures appropriate for the situation when learning or teaching new things
- **MONITORING** - Monitor and assess performance of one's self, other individuals, or organizations to make improvements or take corrective action
- **\*COMPLEX PROBLEM SOLVING** - Identify complex problems and review related information to develop and evaluate options and implement solutions
- **MANAGEMENT OF PERSONNEL RESOURCES** - Motivate, develop, and direct people as they work and identify the best people for the job
- **\*TIME MANAGEMENT** - Manage one's own time or the time of others
- **\*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
- **\*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
- **\*OPERATIONS ANALYSIS** - Analyze needs and product requirements to create a design
- **TECHNOLOGY DESIGN** - Generate or adapt equipment and technology to serve user needs

Other skills as required for successful performance in the lower-level series.

### **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
- **\*CONCENTRATE** - Concentrate on a task over a period of time without being distracted
- **\*RECOGNIZE PROBLEMS** - Tell when something is wrong or is likely to go wrong

- \*REASON TO SOLVE PROBLEMS - Apply general rules to specific problems to produce answers that make sense
- COME UP WITH IDEAS - Come up with a number of ideas about a topic
- \*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 abilities as required for successful performance in the lower-level series.

### **Additional Competency Requirements**

- COMMUNICATION FOR RESULTS – Tailors communication style and method (vocabulary, pace, etc.) for the audience. Uses stories, analogies or examples that effectively illustrate a point. Asks open-ended questions that encourage others to give their point of view. Checks understanding by stating what he/she understands of the message and asking the speaker to verify or clarify.
- GROWTH MINDSET – Analyzes errors, successes and failures, and sets strategies to rectify and increase knowledge. Solicits performance feedback after each assignment. Identifies personal strengths and weaknesses and defines areas for self-development.
- INITIATIVE – Seeks out new challenges that require risk taking. Determines the resources, team support and technology necessary to enable success and procures them. Keeps responding to the challenge in spite of obstacles and setbacks.
- OWNERSHIP AND COMMITMENT – Sets objectives that meet organizational needs. Provides recommendations to individuals and teams on ways to improve performance and meet defined objectives. Determines the resources, team support and technical needs necessary to enable success and procures them. Keeps responding to the challenges in spite of obstacles and setbacks.
- CHANGE ADVOCATE – Participates in change programs by planning implementation activities with other change champions. Interprets the meaning of new strategic directions for the work group and sets objectives and standards. Implements monitoring and feedback systems. Evaluates progress and finds ways of making continuous improvements. Solicits and offers ideas for improving primary business processes. Improves effectiveness and efficiency through the involvement of peers and business partners by initiating new approaches.
- CUSTOMER PARTNERSHIP – Conducts dialogues about improvements at the project or departmental level. Identifies simple product and service improvement opportunities and creates basic cost-benefit proposals. Provides recommendations to customers regarding enhancements to existing products and services as well as solutions that align with strategic performance drivers. Regularly meets with customer representatives to give status reports, and maintains records on customer activities. Demonstrates respect for the opinions of others.
- DECISION MAKING – Applies values, business strategy, policies, precedent and experience to make complex decisions. Knows when he or she has enough information to make a decision and makes it. Considers the consequences of a decision and assesses the options before reaching a conclusion.
- LEADERSHIP – Allocates roles, accountabilities, major assignments and gives clear direction. Defines standards in terms of doing what is appropriate and doing it well. Provides guidance in how to strengthen knowledge and skills to improve personal performance. Recognizes and rewards people for their achievements.

- **OUTCOME DRIVEN** – Evaluates the effectiveness of current metrics in pursuit of improved performance indicators. Takes appropriate actions to ensure obligations are met. Demonstrates the ability to challenge existing practices in order to become more effective. Contributes to improve work methods, outcomes and team performance.
- **SELF CONFIDENCE** – Volunteers to try new activities that expose personal vulnerability. Offers ideas and information. Responds assertively when challenged. Takes risks that are commensurate with the potential benefits. Takes action to resolve conflict and issues.
- **STRATEGIC BUSINESS PLANNING** – Recommends departmental components of the strategic IT plan and its alignment with specific needs of business partners and assesses the plan's impact on budgets and capital expenditure. Provides detailed analysis and summary of departmental issues for strategic planning. Develops strategies, alternatives, and scenarios for reviewing project-specific initiatives. Tracks and reports progress against plan.
- **STRATEGIC RELATIONSHIP MANAGEMENT** – Conducts dialogue with customers that relates individual customer's operational requirements to the organizational strategy. Provides solutions that align short-term needs with strategic performance drivers.

Other competencies as required for successful performance in the lower-level series.

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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  
March 2023