

CLASS SPECIFICATION
County of Fairfax, Virginia

CLASS CODE: 1808

TITLE: DATA ANALYST III

GRADE: S-29

DEFINITION:

Under general supervision, performs the full range of professional data management and data analysis duties required to support business units and users; provides training and guidance; may assist the most senior-level data analysts; and performs related work as required.

DISTINGUISHING CHARACTERISTICS OF THE CLASS:

This class performs moderate to advanced data analysis, information design, and analytics work. It is distinguished from the Data Analyst II class in that the Data Analyst II performs work of routine to moderate complexity in a single role on selected initiatives and typically within a limited range of relevant subject areas, whereas the Data Analyst III serves as the advanced technical expert serving in multiple roles, undertaking multiple initiatives, and providing expertise in multiple subject/domain areas.

ILLUSTRATIVE DUTIES:

Mentors the work of lower-level data analysis, providing work counseling, guidance, and training as needed;

Develops data standards, analytic schemas, and complex data models to ensure complete, correct, accessible and shareable data for information technology development projects;

Gathers and documents business data, information, physical, and analytics requirements;

Develops logical business models;

Prepares physical database design and consolidation, standardization, cleansing, migration, or upload of data;

Assists with planning and facilitating user requirement sessions for data analysis, data standardization, and data ownership;

Analyzes business forms, reports, processes, practices, and procedures;

Designs reporting schemas and data models of moderate to advanced scope and complexity

Identifies and documents data subject areas, data entities, attributes, relationships, information types, domains, and constraints;

Develops structured diagrams, including data flow, entity life cycle, hierarchy, entity/relationships, conceptual schemas, and association matrix diagrams;

Assesses disparate databases for streamlining, standardization, and consolidation opportunities, designing appropriate schemas to enable modernization or optimization;

Assists with identifying physical implementation requirements such as denormalization, data types, defaults, keys, transformations, referential integrity, and screen/script mapping;

Assists with coordinating the development of shared information assets including logical data standards, definition standards, domain, and type standards, and with the resolution of related conflicts;

Provides key input to the development of the corporate information architecture, policies, and methodologies;

Maintains metadata, schemas, data repositories, and data dictionaries;

Assists with the selection, implementation, guidance and training of data administration practices, data access and CASE tools;

Designs and runs database queries to assess or validate data;
Performs data cleansing and transformations to assess data quality;
Supports data testing and analysis for initiatives of high complexity;
Attends training workshops, product demonstrations, conferences, technical briefings, and conventions;
Serves on committees and task forces;
Undertakes special projects;
Stays abreast of technology changes;
Provides assistance to other staff, as needed.

REQUIRED KNOWLEDGE, SKILLS AND ABILITIES:

Considerable knowledge of information systems and the components that process data;
Considerable knowledge of the principles, practices, and methods related to information architecture;
Considerable knowledge of data administration areas such as policies and standards, data definition, modeling and logical design, database design, and quality control;
Considerable knowledge of data concepts such as syntax, taxonomy, and hierarchy;
Considerable knowledge of relational databases (such as Oracle or DB2)
Knowledge of business intelligence solutions or data-related CASE and modeling tools;
Knowledge of data modeling mapping, cleansing, extraction, exchange, manipulation, and load principles;
Extensive knowledge of business process analysis and redesign;
Some knowledge of business intelligence and information system design principles;
Some knowledge of services-oriented architecture, object-oriented application development, data integration, data exchange protocols, or XML schema design;
Skill in brainstorming, presenting, sharing, discussing, and defending ideas;
Skill in problem-solving, with appreciation and respect for diversity of differing professional views;
Skill in leading meeting participants toward consensus;
Skill in designing and presenting conforming, efficient, and unambiguous models and diagrams of complex reporting and information systems;
Skill in applying work and ideas to advance enterprise architecture goals and objectives;
Ability to establish and maintain effective business relationships;
Ability to help stakeholders effectively resolve issues related to cross-agency data sharing, usage conflicts, and data inconsistencies;
Ability to follow special formatting requirements and conventions in work products;
Ability to establish and maintain appropriate version control over work products;
Ability to communicate effectively, both orally and in writing;
Ability to make use of provided resources and seek guidance as needed;
Ability to analyze and evaluate administrative processes and procedures for data analysis purposes;
Ability to conduct research into new information technology;
Ability to prepare essential task deliverable and documentation;
Ability to translate technical terminology into simple language and concepts;
Ability to train employees in the use of data access tools.

EMPLOYMENT STANDARDS:

Any combination of education, experience and training equivalent to the following:
Graduation from an accredited four-year college or university with a degree in Information Technology, Information Systems, Computer Science, Business Administration, or related field AND coursework in analytics, biosystematics, biology, information architecture, engineering, library science, statistics, sociology, demographics, and/or marketing, PLUS
Five years analysis of data and information experience in an academic, data administration, or business data analytics environment that involves using data modeling, database consolidation, ad hoc query, or business intelligence tools, relational databases, metadata, XML schema design, and/or taxonomy.

CERTIFICATES AND LICENSES REQUIRED:

None.

NECESSARY SPECIAL REQUIREMENTS:

Must successfully complete a criminal background investigation prior to appointment and be re-certifiable throughout employment tenure;
Some positions identified by departments must execute IT Employee Agreement acknowledging obligations under information security and privacy requirements in light of broad access to systems and data in the performance of job duties.

REVISED: July 30, 2007
ESTABLISHED: May 24, 1999