

SYSTEMS ANALYST/PROGRAMMER

DEFINITION

Under general supervision, performs a variety of application development and analysis functions of the assigned department's technology and application systems; creates business processes to meet end user requirements and Federal, State, District, local, and department regulatory mandates, rules, regulations, policies, and procedures; evaluates and personally participates in the functions necessary to implement and sustain the creation, maintenance, and use of assigned department's databases and applications; tests and maintains data analysis and reporting programs to enhance and support reporting requirements and data tracking needs; coordinates work and services with central Information Technology Department and other staff; Performs routine to complex technical support, analysis, and programming to ensure complete and appropriate use of the District's administrative and student systems.

SUPERVISION RECEIVED AND EXERCISED

Receives general supervision from the Dean of the assigned department. Exercises no direct supervision of staff. May provide technical and functional to student workers.

CLASS CHARACTERISTICS

This is a single-position professional-level analyst classification that performs a variety of business process analysis, system application, and reporting activities. Incumbents exercise a high level of discretion and independent judgment in performing the full range of routine and complex assignments. Successful performance of the work requires thorough knowledge of database applications and basic knowledge of the District's information systems infrastructure. This class is distinguished from other information technology classes by the level of specialized technical knowledge of and emphasis on assigned department's software and database applications.

EXAMPLES OF ESSENTIAL FUNCTIONS (Illustrative Only)

- Designs business processes for the maintenance, access, and retrieval of assigned department's data; prepares detailed flow charts and diagrams outlining system capabilities and processes; defines data rules and relationships and develops methods for quality control of the database system; reviews and evaluates database access and reporting software applications to streamline and enhance the assigned department's enterprise system; creates documentation of processes.
- Troubleshoots, updates, modifies, and analyzes information systems to ensure compliance with regulatory needs and changes.
- Designs methods and applications to import/export data for analysis; uses various reporting tools and database applications to retrieve information from databases for assigned department's staff and other staff as needed; determines required data and presentation formats.
- Ensures successful storage and retrieval of data across a variety of campus systems; ensures assigned department's systems interface with other campus systems.
- Creates complex custom queries and programs for a variety of assigned department's management needs and reporting requirements; creates queries to analyze and identify data integrity issues.
- Monitors and maintains data integrity of assigned department's tables, fields, reports, and related systems; works with central information technology to execute scripts to correct data issues.
- Provides expert technical assistance and training for assigned department's staff on system procedures, system integration, data integrity, and reporting.
- Plans, designs, and creates new databases for data collection, analysis, and reporting.
- Installs and configures database access applications and troubleshoots database connectivity issues.
- Consults with information technology staff to create views and data blocks for data reporting and

extraction.

- Coordinates with information technology, finance, and other college staff to facilitate the resolution of implementing and scheduling new and/or modified business processes and the development of new modified database processes and reporting requirements.
- Acts as the first-line contact person for assigned department's staff for technical assistance with admissions and records student module system for testing, troubleshooting, and problem resolution.
- Tests and debugs applications to ensure accuracy of data and write related application documentation, including system upgrade testing and end-user documentation.
- Communicates with personnel and various outside agencies as needed to exchange information and resolve issues or concerns.
- Participates with end users and information technology in designing, testing, and implementing new computer programs as appropriate, including developing and maintaining related documentation.
- Learns and applies emerging technologies and, as necessary, to perform duties in an efficient, organized, and timely manner.
- Creates complex custom queries and programs for a variety of needs and reporting requirements; creates queries to analyze and identify data integrity issues and debugs applications to ensure accuracy of data; Designs methods and applications to import/export data for analysis.
- Performs other related duties as assigned.

QUALIFICATIONS

Knowledge of:

- Data systems concepts and structures, reporting relationships, data analysis methods, design, practices, and procedures.
- Principles and practices of programming and application generation tools.
- Various software packages including word processing, spreadsheet, data and database management, reporting tools, and desktop publishing applications and programs.
- Basic data management, data extraction, and relational database systems theory, principles, techniques, and practices.
- Research and reporting methods, techniques, and procedures.
- Principles and practices of data collection and report preparation.
- Applicable Federal, State, local, and District policies, codes, regulations, technical processes, and procedures related to the program to which assigned.
- Modern office practices, methods, and computer equipment and applications.
- Record keeping principles and procedures.
- English usage, spelling, vocabulary, grammar, and punctuation.
- Techniques for providing a high level of customer service by effectively dealing with the public, vendors, students, and District staff, including individuals of various ages, disabilities, various socio-economic and ethnic groups.

Skills & Abilities to:

- Use computer-related programs and software applications related to the area of assignment.
- Analyze situations and identify and troubleshoot pertinent technical problems/issues; collect relevant information; evaluate realistic options; and recommend/implement appropriate course of action.
- Develop and implement systems application-related projects with sufficient speed and accuracy.
- Review, analyze, customize, and implement software packages and database applications related to departmental projects.
- Develop queries and perform complex analysis of data.
- Interpret, apply, and explain technical materials to non-technical users; elicit user needs and develop and implement appropriate solutions.

- Conduct research; analyze, interpret, summarize, and present technical information and data in an effective manner.
- Make accurate mathematical and basic statistical computations.
- Organize and prioritize a variety of projects and multiple tasks in an effective and timely manner; organize own work, set priorities, and meet critical time deadlines.
- Operate modern office equipment including computer equipment and applications programs.
- Use English effectively to communicate in person, over the telephone, and in writing.
- Understand scope of authority in making independent decisions.
- Review situations accurately and determine appropriate course of action using judgment according to established policies and procedures.
- Establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.

Education and Experience:

Any combination of training and experience which would provide the required knowledge, skills, and abilities is qualifying. A typical way to obtain the required qualifications would be:

Equivalent to graduation from a regionally accredited four-year college or university with major coursework in computer science, computer information systems, or a related field and three (3) years of professional experience in designing, programming, supporting, and implementing database applications that address the specific needs of an assigned area. Experience in a assigned department at an institute of higher education is desirable.

Equivalent to an Associate's degree from a regionally accredited college with major coursework in in computer science, computer information systems, or a related field and five (5) years of directly related experience, may be substituted for the four-year degree and three (3) years of experience described above.

Licenses and Certifications:

None.

PHYSICAL DEMANDS

Must possess mobility to work in a standard office setting and use standard office equipment, including a computer; vision to read printed materials and a computer screen; and hearing and speech to communicate in person and over the telephone. This is primarily a sedentary office classification although standing and walking between work areas may be required. Finger dexterity is needed to access, enter, and retrieve data using a computer keyboard or calculator and to operate standard office equipment. Positions in this classification occasionally bend, stoop, kneel, reach, push, and pull drawers open and closed to retrieve and file information. Incumbents must possess the ability to lift, carry, push, and pull materials and objects up to 20 pounds.

ENVIRONMENTAL ELEMENTS

Incumbents work in an office environment with moderate noise levels, controlled temperature conditions, and no direct exposure to hazardous physical substances. Incumbents may interact with staff, students, and/or the public in interpreting and enforcing departmental policies and procedures.