INFORMATION SYSTEMS ANALYST

DEFINITION

Under direction, provides technical and analytical support to District technology programs in diverse capacities ranging from responses to complex user-support issues to technology system development, implementation, reporting, and administration; areas of responsibility include, but are not limited to, network administration, database administration, application development, and website development; monitors systems to ensure performance and reliability standards are met; performs specialized duties in support of an assigned technology program area; and performs related duties, as assigned.

SUPERVISION RECEIVED AND EXERCISED

Receives direction from assigned supervisory or management personnel. Exercise no direct supervision over staff.

CLASS CHARACTERISTICS

This classification is responsible for independently performing professional duties in support of an assigned information systems functional area. Positions at this level exercise judgment and initiative in their assigned tasks, receive only occasional instruction or assistance as new or unusual situations arise and are fully aware of the operating procedures and policies of the work unit. This class is distinguished from the Senior Information Systems Analyst in that the latter performs the most complex work assigned to the series.

EXAMPLES OF TYPICAL JOB FUNCTIONS

Management reserves the right to make reasonable accommodations so that qualified employees can perform the essential functions of the job.

➢ Provides technical and analytical support for assigned technology programs in diverse capacities ranging from complex user support to technology system implementation, and administration; responds to client service issues using multiple diagnostic techniques; independently resolves issues or confers with colleagues and management on resolution options.

➢ Serves as a responder for complex user or MIS submission issues; coordinates the disposition and resolution of incidents; troubleshoots and determines corrective action; provides status updates to clients and colleagues on technology problem resolution.

➢ Uses multiple devices to monitor systems evaluating reliability, conformance to performance metrics, and overall availability; implements, tests, and evaluates the effectiveness of solutions; assists in the development and implementation of technology related protocols, policies, procedures, and operating standards.

➢ Installs software patches and upgrades for assigned computer systems; maintains security; coordinates, troubleshoots and cleans up viruses/malware on infected systems, and for incident responses to breaches in security; maintains logs and records.

➢ Installs hardware for all administrative servers; analyzes, modifies, tests, and debugs new and existing computer programs; configures District printers and assists with administrative software applications and database support; troubleshoots problems with Local Area/Wide Area Networks (LAN/WAN) connections and corrects problems in network server operating systems, and server applications.

➢ Consults with faculty and staff for system and reporting needs, design and operation; provides recommendations based upon research and analysis on existing and emerging technology, tools and

methodologies to enhance processes and/or workflow; assists with vendor negotiation on the terms, conditions and prices for hardware, software and services and obtains quotes.

➢ Identifies system deficiencies or additional resource requirements; develops and implements modified or enhanced systems to increase their efficiency, reliability, and availability; implements, tests, and evaluates the effectiveness of solutions.

➢ Conducts research and stays current on new trends and innovative solutions for technology programs; recommends new technologies which would improve the District's operational effectiveness or services to business and instructional departments.

➢ May serve as a project leader on assigned projects, coordinating and inspecting the work of professional and technical staff; determines project requirements, business needs, purpose or justification; identifies stakeholders, and functional area participation; refines project requirements, scope, objectives, deliverables, acceptance criteria, constraints, assumptions, and alternative solutions; estimates resource costs and overall project budget; identifies project staff roles and responsibilities; determines stakeholder information and communication plans.

➢ Writes and maintains user and technical operating instructions and documentation; prepares training materials and conducts formal and informal training programs; and advises on best practices.

➢ May provide work direction to part-time hourly staff, short-term employee(s) and/or work study students.

➢ Works productively and cooperatively with others by demonstrating respect, patience and equitable treatment of all internal and external customers.

➢ Observes and complies with District and mandated safety rules, regulations, and protocols.

➢ Performs other related duties as assigned.

Application Development

➢ Designs and develops custom code and automated solutions, utilizing various programming languages, for the District's computing environment; creates and implements maintenance automation scripts and utilities; deploys and enforces software policy restrictions to end point devices.

➢ Performs software applications research, development, conversion, installation, and maintenance projects; reviews, analyzes, streamlines, and documents business processes and relates them to application software; prepares recommendations for procedural and operational modifications to optimize internal and customer workflows.

➢ Develops and implements automated processes, scripts, triggers, specialized views, and reports in response to user needs.

Database Administration

➢ Designs, creates, and runs reports used for business process analysis and decision-making; sets up report definitions and designs methods to import/export data.

➢ Designs and maintains database infrastructure; organizes and converts data into relational tables; maintains relational data models as new information and table structures are added.

➢ Ensures database security by preparing access and control policies and procedures and reviewing permissions on a regular basis.

➢ Monitors disaster recovery and backup processes and schedules; verifies that backups are successful and data can be recovered.

Network Administration

➢ Evaluates, recommends, installs, configures, supports, programs, and maintains a variety of network operating systems and solutions for the District; monitors equipment functions and usability, reviews performance utilization; maintains systems to maximize availability and accessibility; modifies firewall, router, and network monitoring system configurations to enable new servers or applications.

➢ Implements, monitors, and maintains network security controls; configures and monitors security features and firewall rules; verifies and ensures proper user accessibility; identifies and addresses vulnerabilities; researches, recommends, and applies security updates.

➢ Installs, configures, and maintains all network hardware, software, peripherals, and devices, including switches, routers, interfaces, wireless access points, servers, and firewalls, for functionality and security.

➢ Designs, analyzes, configures, upgrades, and maintains data storage infrastructure and systems including administering storage area network (SAN) and monitoring storage usage, performance, and access rules.

Website Development

➢ Develops moderate to complex custom web applications for internet and intranet use; analyzes web systems and organizes web structure and content for optimal efficiency; plans, configures, deploys, monitors, and maintains District network and web services; ensures systems are operational, programs are functional, and that data is accurate and available.

➢ Constructs, updates, and maintains internet and intranet websites that contain text, graphic, video, and interactive features; establishes web development life cycle process and procedure; develops and modifies web templates, modules and applications; audits and maintains style guidelines for websites, including utilization of uniform fonts, formatting, icons, layout techniques, and graphic quality; performs various levels of social media integration.

➢ Supports faculty and staff, troubleshoots web design and site development needs using appropriate hardware and software; checks and repairs broken links and code differences between platforms and browser software; ensures data accuracy and integrity; assigns various user rights to staff who update departments web content.

QUALIFICATIONS

Knowledge of:

➢ Operations, services, and activities of integrated information technology systems.
➢ Methods and techniques of evaluating business need requirements to provide technology solutions.
➢ Principles, methods, and techniques used in designing, developing, testing, and implementing information technology applications.
➢ Principles, practices, equipment and protocols for the design, installation and operation of data communications networks, and associated equipment and devices.
➢ Server based operating systems and desktop software applications including system standards, and protocols.
➢ Principles and practices of technology system security.
➢ Principles and practices of database administration and management.
➢ Principles and practices of network monitoring and administration.
➢ Methods and techniques of system and application integration.
➢ Methods and techniques of website development and content management.
➢ Multiple programming languages used in District technology programs.
➢ Computer hardware and software systems similar to those being used by the District, including business applications, operating systems, and network systems.
➢ Principles, practices, methods, and techniques of troubleshooting, diagnosing, and resolving hardware and software, and network/telecommunication system issues.
➢ Project planning, prioritizing and scheduling techniques.
➢ Research techniques, methods, and procedures.
➢ Technical report writing practices and procedures.
➢ Principles and procedures of record-keeping and reporting.

➢ District and mandated safety rules, regulations, and protocols.
➢ Techniques of providing a high level of customer service by effectively interacting with students, staff, faculty, representatives of outside organizations, and members of the public, including individuals of diverse academic, socio-economic, ethnic, religious and cultural backgrounds, physical ability, and sexual orientation.
➢ The structure and content of the English language to effectively perform the work.
➢ Modern equipment and communication tools used for business functions and program, project, and task coordination, including computers and software programs relevant to work performed.

Ability to:

➢ Provide professional support to a diverse range of technology systems, hardware, and software.
➢ Analyze complex user problems, evaluate alternatives and devise efficient, cost-effective, user-friendly solutions.
➢ Participate in the design, development, testing, and implementation of new technology systems.
➢ Take measures to ensure the integrity of system data.
➢ Implement database and/or system security measures.
➢ Design, develop, manage and maintain web sites.
➢ Monitor systems operational effectiveness, reliability or security vulnerability, and respond accordingly.
➢ Understand, interpret, and apply all pertinent laws, codes, regulations, policies, and procedures and standards relevant to work performed.
➢ Participate in the development and implementation of technology policies, procedures, and protocols.
➢ Utilize appropriate diagnostic and testing equipment to detect and resolve hardware and software issues.
➢ Plan, develop, and facilitate training.
➢ Prepare clear, concise and accurate technical documentation, user guides, reports of work performed, and other written materials.
➢ Communicate complex technology issues clearly to non-technical parties.
➢ Independently organize work, set priorities, meet critical deadlines, and follow-up on assignments.
➢ Use tact, initiative, prudence, and independent judgment within general policy, and procedural guidelines.
➢ Effectively use computer systems, software applications, and modern business equipment to perform a variety of work tasks.
➢ Communicate clearly and concisely, both orally and in writing.
➢ Demonstrate sensitivity to, and understanding of, the diverse academic, socio-economic, ethnic, religious, and cultural backgrounds of community college students.
➢ 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 that would provide the required knowledge, skills, and abilities is qualifying. A typical way to obtain the required qualifications would be:

Education:
➢ Equivalent to a bachelor's degree from an accredited college or university with major coursework in computer science, information technology, or a related field.

Experience:
➢ Two (2) years of increasingly responsible experience providing highly technical support to information systems in assigned program area.

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 in work areas 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. Employees must possess the ability to lift, carry, push, and pull materials and objects up to 50 pounds or heavier weights with the use of proper equipment and/or assistance from other staff.

ENVIRONMENTAL CONDITIONS

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